

**TOWN OF HULL**  
Sewer Department

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May 27, 2020

Via electronic mail and Fedex

David Turin  
U.S. Environmental Protection Agency  
5 Post Office Square – Suite 100  
Mail Code: OES04-3  
Boston, MA 02109-3912

Re: Hull WPCF Capacity, Management, Operation and Maintenance ("CMOM") Program  
Implementation Annual Report  
Town of Hull, MA Administrative Order on Consent, Docket No. CWA-01-AO-16-09

Dear Mr. Turin:

As identified in the Administrative Order on Consent (AOC), the Town of Hull is hereby submitting the Hull Water Pollution Control Facility (WPCF) CMOM Program Implementation Year 4 Annual Report for your review, comment and/or approval. This report also serves as the fulfillment of the NPDES annual reporting requirements for the WPCF (NPDES Permit No. MA0101231).

If you have any questions, please don't hesitate to give me a call at 781-925-1207 Monday-Thursday, 8:00am - 5:00pm.

Sincerely,

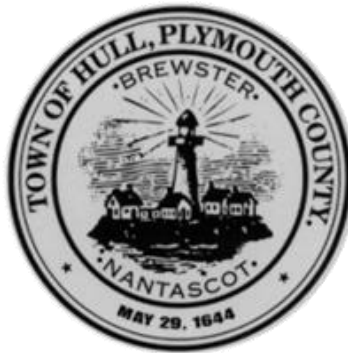
John J. Struzziery, P.E.  
Director of Wastewater Operations

Enclosures: CMOM Annual Report, May 2020

cc: David Burns, MassDEP Southeast Regional Office  
Philip Lemnios, Town Manager, Town of Hull  
Brian Kiely, P.E., Assistant Director of Wastewater Operations, Town of Hull  
Aram Varjabedian, Project Manager, W&C  
Robert Scott, Area Manager, W&C

**TOWN OF HULL  
SEWER DEPARTMENT**

1111 NANTASKET AVENUE  
HULL, MA 02050



**CMOM ANNUAL REPORT  
MAY 2020**

JOHN J. STRUZZIERY, P.E.  
DIRECTOR OF WASTEWATER OPERATIONS

BRIAN R. KIELY, P.E.  
ASSISTANT DIRECTOR OF WASTEWATER OPERATIONS



## EXECUTIVE SUMMARY

The Town of Hull Sewer Department has prepared this Capacity Management Operation and Maintenance (CMOM) 4<sup>th</sup> Annual Report to serve as a summary of maintenance and operation activities performed during 2019 to the Town of Hull's Wastewater System. The purpose is to document progress as required by the Administrative Order on Consent (AOC) and fulfill NPDES permit requirements for reporting I/I minimization. Woodard & Curran has operated the WPCF since May 1, 2015 as Contract Operator.

This report includes the following AOC deliverables:

1. A detailed description of the actions taken during the previous calendar year to address action items included in the CMOM Corrective Action Plan.
2. A description of the actions that will be taken during the current calendar year to address action items included in the CMOM Corrective Action Plan.
3. A summary listing of all unauthorized discharges that have occurred during the last calendar year, in accordance with the NPDES Permit Section D.1.
  - a. A report of any infiltration/inflow related corrective actions taken, as a result of unauthorized discharges reported pursuant to 314 CMR 3.19(20) and NPDES Permit Part 1, Section D.1.
4. A map of the Town's Collection System showing the location of each unauthorized discharge included in the summary listing.

And the following NPDES permit deliverables:

5. A map and a description of inspection and maintenance activities conducted, and corrective actions taken during the previous year.
6. Expenditures for any infiltration/inflow related maintenance activities and corrective actions taken during the previous year.
7. A map with areas identified for I/I-related investigation/action in the coming year.
8. An estimate of the annual average I/I and the maximum month I/I for the reporting year.



## COMPLETED PROJECTS

### AOC Deliverables

The following AOC deliverables were completed:

- CMOM Annual Report #3 (submitted March 27, 2019)
- CMOM 3<sup>rd</sup> Year Self-Assessment Checklist (submitted August 7, 2019)

This concludes the deliverables ordered by the original AOC.

### CMOM Activities

During 2019, ongoing repairs and upgrades were performed at the WPCF. An updated copy of the “WPCF Rehabilitation Schedule” is included in Appendix A, to provide status updates since the March 2019 (Annual Year 2018 Report) deliverable. Some other system upgrades in 2019 include:

- a. The electrical service to the WPCF was upgraded through a CZM Resiliency Grant program. The transformer was relocated from finished grade to pole mounted. The project elevated the critical equipment well above design flood elevations considering sea level rise and climate change projection. Design flood elevations were previously determined by Woods Hole Group for the WPCF as well as all remote pumping stations
- b. The Sewer Interceptor Pipeline Renewal project CIPP lined 4,914 LF of deteriorated reinforced concrete pipe which had been a major source of infiltration and close to failure. 32 Manholes were curtain grouted throughout the year and the remaining 46 will be completed when the project is complete by mid-2020. 28 vertical feet of manholes were epoxy lined. The Sewer Department also replaced through various sewer and roadway projects, and general maintenance, approximately 25 frames and covers that were broken, worn, old with holes, or in otherwise poor condition.
- c. The Atlantic Ave./Gunrock Ave. Area Sewer Infrastructure Renewal project CIPP lined force main pipe, gravity sewers, service laterals, as well as dig and replace sewer and services, and rehabilitated manholes.
- d. The Town repaired a broken 10 inch diameter sewer on Kenberma Street by replacing with a section of new PVC pipe and then CIPP lining manhole to



manhole to stop and significant and active infiltration source that created a sinkhole at the surface.

- e. The Town treated 202 LF of 4” pipe on the Summit Ave cross-country sewer for roots.
- f. The Town curtain grouted 5 manholes on Newport Ave with active infiltration.
- g. The Town rehabilitated eight manholes with a cementitious liner and new frames and covers on Nantasket Avenue between School Street and Atlantic Avenue to correct deteriorated conditions and active infiltration.
- h. Critical Equipment Replacements were solicited for bid. The Town procured a trailer-mounted 8-inch pump, a gravity thickener gear box, and two secondary clarifier gearbox drives through the bid.
- i. The Town repaired a broken force main at Pump Station 4 on Marginal Road and installed a new force main isolation valve and bypass standpipe to facilitate future pump station bypasses. The same design was then installed at Pump Station 5 at Draper Avenue in anticipation of a future rehabilitation.
- j. For the past three years, a significant effort has been underway to inspect the Town’s sewer in advance of the roadway rehabilitation program. In 2019 the Town inspected over 22,000 LF of sewer and force mains, and over 178 sewer manholes. Part of this ongoing program has been to repair sewer defects as they are identified. Many repairs and replacements of sewer and manholes were made in advance of roadway paving.
- k. The Town installed an artificial intelligence platform, APOLLO, through a grant from Massachusetts Clean Energy Council (MassCEC) which analyses wastewater flow, rainfall, and tide data in real time together with energy and chemical usage to improve resource efficiency at the WPCF and remote pump stations. The platform uses historical and real time data to show trends and predict resource consumption, allowing operators to make changes to conserve those resources. The platform also includes a collection system module which helps identify I/I in the sewer system. The collection system module began collecting data in March 2020. It is expected that future reports will utilize this data for I/I reporting.
- l. The Town was awarded a Coastal Zone Management (CZM) resiliency grant to design flood protection measures at the WPCF. The measures include nature-based solutions such as vegetative berms as well as concrete gravity wall, flood gates at access points, and a new emergency access road.



During 2019, both the Town Sewer Department and Contract Operator performed corrective and preventative maintenance of the collection system, including:

- 21 Grinder pump customer service and corrective action calls
- Abatement of 6 Unauthorized Discharges
- Over 403 Dig Safe utility mark-outs
- A summary of the 2019 completed SEMS Work Orders is attached in Appendix B. This is a summary of the completed work orders for the collection system, including the Pump Stations, and summarized by Asset Name and provides additional details for specific work performed.
- Ultrasonic thickness testing of Pump Station #4 force main was completed.

The 2019 total for maintenance expenditures for CMOM and I/I are summarized in Appendix C.

### **Hydrogen Sulfide Control**

The Sewer Department continued the BIOXIDE addition at Pump Station #3 in 2019 for H<sub>2</sub>S control in the collection system. The approximate feed dates were May through November. During the feed season, monthly data logging was done to ensure adequate dosing, and mitigation of odors. Three to four Manhole H<sub>2</sub>S monitors were in use.

BIOXIDE solution controls hydrogen sulfide odors and corrosion biologically. Introduction of nitrate oxygen via addition of BIOXIDE solution into a waste stream creates an environment in which certain naturally occurring bacteria thrive. These bacteria utilize the dissolved hydrogen sulfide, which is present as a part of their metabolism, thereby cost effectively removing any dissolved hydrogen sulfide from the wastewater. As a result, BIOXIDE solution both removes dissolved hydrogen sulfide and prevents its formation. In addition to hydrogen sulfide, BIOXIDE also combats most other odors commonly found in wastewater treatment systems. BIOXIDE solution has proven effective treatment in many types of wastewater facilities, in widely varying flows, and in any kind of weather.

No odor complaints were received in 2019, indicating successful implementation of BIOXIDE H<sub>2</sub>S control.

### **Sewer System Evaluation Survey (SSES)**

The Sewer System Evaluation Survey (SSES) began in 2019 and is underway, part of the Capacity, Management, Operation, and Maintenance (CMOM) Corrective Action Plan (CAP). The current step outlined in the CAP is to perform an updated SSES Survey for investigation for



inflow and infiltration sources in areas identified in historic I/I report and current operational data, per AOC CMOM CAP item VI.A.2.

The SSES work in 2019 included smoke testing of 127,000 LF of the Town's sewers. The preliminary results have identified an estimated 290,963 gpd of inflow sources. These include roof leaders, driveway drains, and catch basins indicated as tied into the sanitary sewer. Work will continue in 2020 as detailed in the Planned CMOM Activities section of this report.

Included in the Appendix see **Figure 1 – Map of Collection System Investigations.**

Outfall Inspection and Capacity evaluation: per AOC CMOM CAP item IV.E.1, the evaluation is ongoing and includes:

- COMPLETE Inspection of existing outfall pipe and diffusers:
  - 18 diffusers located in good condition using side scan sonar. The remaining 18 diffusers were buried due to shifting bottom conditions and are intended to be monitored over time.
- The majority of the 2,705 LF outfall pipe was inspected using CCTV except 321 LF which was not inspected due to sand build up in the pipe, found to be in good condition. The final report of recommendations and next steps is due in mid-2020, which will include an updated hydraulic assessment of the outfall and chlorine contact tank. The Facilities and Resiliency Plan includes an alternatives analysis of switching to UV disinfection and pumping directly to outfall from the effluent pump room, eliminating the need for the chlorine contact tank, which is being considered for future capital improvements.

## Unauthorized Discharges

There were 6 unauthorized discharges in 2019. Included in this section are details regarding this year's discharges. The full Unauthorized Discharge Summary Table can be found in Appendix D.

The 6 unauthorized discharge locations documented in 2019 were all sanitary sewer overflows (SSO's). Brief descriptions as well as status of each unauthorized discharge are listed in chronological order below.

Included in the Appendix see **Figure 2 – Map of Sanitary Sewer Overflows.**



## 2019 SSO SUMMARY

### 13 Marginal Road – Pump Station No. 4

**Status:** *Closed; Abated*

On May 15, 2019 at about 6:43 pm the sewer department received a call of a leak on Marginal Road near Pump Station #4. Staff were dispatched and arrived within 15 minutes. The staff found water coming to the ground surface. They then confirmed that the 8" force main near the pump station building was leaking and the ground was saturated with sewage by cycling one of the sewage pumps. The pumps at the station were immediately shut off and the force main was drained back into the wet well to minimize additional leakage of sewage to the ground surface. An emergency action/response plan was initiated with a sewer vac truck, sewage pumper trucks and repair contractor all called in. While waiting for the vac truck, sandbags were put in place around the nearby catch basins to stop any sewage that had made its way up to the surface from going into the nearby two catch basins. The vac truck arrived in approximately 90 minutes and performed the necessary clean up and washdown of the area. The repair contractor arrived and work plan for the repairs were discussed and excavation began. A sewer plug was installed into the manhole in front of the pump station. The excavation to expose the damaged pipe for repair was difficult due to the unstable ground material [all sand], and this caused for a lengthy repair project. While the repairs were ongoing, two pumper trucks were operating to pump and maintain gravity sewage flow from the area nearby residences. A nearby discharge location for the collected sewage was determined. The construction and pumping operation ran from late evening on 5/15 to approximately 3PM on 5/16. The cause of the force main pipe failure for the section that exited the pump station was corrosion and settlement. Approximately 500 gallons of sewage was released to the surface and much of that was contained on the roadway and in the catch basins, and these areas were all hosed down and wash water vacuumed up.

### 407 Nantasket Ave

**Status:** *Closed; Abated*

On June 7, 2019, a sewer back-up call was received for this location, which is a multi-resident apartment building. Sewage had backed up into the building basement area. An attempt to locate the blockage on the property was made by the owner, with the Town's oversight on the property. The lateral was excavated in their driveway, and a sewer jet machine unit was called in. A camera inspection was attempted first with no clear results, except that the blockage was found to be at the main on Nantasket Ave. Sewer jetting could not clear the blockage. The initial excavation was backfilled after this lateral segment was repaired and a cleanout installed. The sewer lateral would be excavated out in the road the next morning. Residents were advised to limit water use overnight and all of the back-up contents were contained in the unfinished basement area. On 6/8/19 the contractor dug up the connection at the road and found a blockage due to rags and debris with an additional restriction caused by an offset cutout from an earlier sewer lining project. This liner cutout was cleared properly, and a new service connection to the main was installed and conditions returned to normal. The basement area was cleaned out and





liquid contents pumped into the sewer line. Based upon the size of the basement and the standing water observed, the back-up quantity was estimated at 1000 gallons.

### **7 Douglas Ave**

**Status:** *Closed; Abated*

On Sunday July 14, 2019, a sewer back up call was received for this location. Upon notification we responded and investigated the area and found a small modified sewer manhole that was surcharged and weeping slightly. Investigation of the sewer lines for the area located at top of the hill, presented some doubt on whether or not the sewer was part of the town-owned sewer system. Our dispatched crew brought along small tote and pumped out the manhole's contents [shallow Manhole and approximately 2.5 ft in depth – pumped out approximately 50 gallons] down to the lowest level we could. This action prevented any additional overflow. Less than 10 gallons of sewage weeped out and evaporated on the roadway area. No release made it to the waters of the U.S. Upon further investigation, the Town was not aware that this unmapped sewer line existed. It appears that the 3" diameter sewer was installed originally to serve one home, and as the area developed additional homes were connected to it. During this investigation, it was also found that there were two other sewer parallel lines installed down the hill that serve adjacent properties as they developed. Limited information existed and there were several tie cards indicating that the Town acknowledged some of these connections. On Monday, July 16<sup>th</sup>, a call was made for a pumper truck and jetter-trailer to clean the manhole and clear the blockage. The 3-inch PVC sewer line downstream of the blockage was cleared and dye tested to verify flow and where the line was connected to the main line. The cause of the blockage was undetermined.

### **157 Atlantic Ave – Pump Station No. 1**

**Status:** *Closed; Abated*

On Thursday 8/22/19, the No 1 pump station was shut down for pipe inspection and condition assessment as part of the Atlantic Ave./Gunrock Ave Sewer Infrastructure renewal for the force main and gravity sewer lines. At that time, a very small amount of groundwater was found to be leaking into the pump station chamber at the mid-level. On Saturday 8/24, the amount of leakage into the pump station had increased but there was uncertainty as to the source of the water. A few additional station checks were made, and the findings were inconclusive. There were no unusual observations or conditions found outside of the building and surrounding area. At that time there was no sewage odors detected. Additional inspections were made on Sunday and Monday. On Monday afternoon the amount of leakage into the pump room had increased more, and the leak smelled of sewage and was coming in as high as the top floor slab. There is no indication that wastewater has entered into any other location other than the pump station dry well, but the sump pump was handling the liquid and pumping it back into the wet well. The pump station was shut off for a couple of hours to see if the leakage volume changed, and it had subsided some, confirming the high likelihood that there might be a small hole in the outbound 8-inch ductile iron force main pipe as it exited the pump room. Structural failure of the pipe was due to rot and corrosion. The pump station flow rates appeared normal and flow has been observed at the discharge manhole in front of Town Hall, so it appeared that most flow was still



getting through the force main. To date, there had been no signs of breakout to the surrounding area ground surface. An emergency repair plan was developed on 8/26 with repairs made on 8/28. At the time of the excavation, it was estimated that “less than 100 gallons” of sewage was released after the force main drain back had been completed. While the station repairs were being made, the pump station flows were maintained using two septic pump trucks that collected the sewage and transported to a nearby downgradient gravity sewer manhole.

A call was made to David Burns on 8/28 to discuss the situation and current conditions and plan to address the issue. A notification was made to comply with reporting requirements for releases from the sanitary system, with a full report follow up. During the incident period, there was no indication that any discharge made it to a wetland or the surface. Sampling was conducted in Straits Pond upstream and downstream of the pump station, and the results did not show any signs of pollution.

### **710 Nantasket Ave & E Street Intersection**

**Status:** *Closed; Abated*

Just before 2:30 pm on 8/29/19 a call was received by the Resident Project Representative overseeing the Hull Sewage Interceptor Pipeline Renewal Project. A Green Mountain Pipeline Services [GMPS] vactor truck experienced a leak that spilled approximately 50 gallons of sewage onto the southbound lane of Nantasket Ave. The liquid flowed easterly into the gutter on the north side of E Street for approximately 160 linear feet. The flow was contained in a depression/low point along the gutter line in front of 49 E St. GMPS immediately washed down the affected area with hydrant water which followed the same flow path, minimized the leakage and drove the truck to the landfill, where they had been depositing residuals from the SRF funded project for the Nantasket Ave sewage interceptor relining. There was some observed dampness around the catch basin at the NE quadrant of the intersection. This was reported to be from hydrant water used to wash down the street. GMPS was then directed to clean out/vac out this catch basin. GMPS also was directed to wash down the spill area again and immediately vacuum up any wash down water. Some of the wash down water did make its way to the catch basin in front of 43 E St, and that catch basin was vacuumed out as well. None of the initially spilled sewage reached the nearby catch basins, but during the washdown operations, some liquid did. There were no resident or traffic issues during this time. It was communicated to GMPS that the vactor truck is not allowed back onsite until it is repaired, and that the crews should always have clean up and spill containment measures with them.

### **714 Nantasket Ave & F Street Intersection**

**Status:** *Closed; Abated*

Due to construction activities, since the Town is currently lining its 36-inch sewer interceptor, a Sanitary Sewer Overflow [SSO] which occurred on 12/9/2019 at the intersection of Nantasket Avenue and F Street at approximately 4:45PM. The temporary wastewater bypass piping was struck at the discharge location by a tractor trailer truck. The estimate for the SSO was



determined to be 7,000 gallons, based upon the estimated bypass pumped volume during the 10 minutes of discharge. The spillage did not make its way to the receiving waters, as the catch basin in the area appeared to be leaching basin. Sandbags were in place within 10-minutes after the spill directing the wastewater to the sewer manhole. The Contractor vactored out the affected catch basin and the affected street area was washed down gutter line along F Street and where the sewage flowed due to the crown in the road. All areas washed down and vacuumed up.



## **PUBLIC OUTREACH**

Appendix E is a copy of the 2019 Annual Report published by the Hull Sewer Department. In addition, quarterly newsletters are sent with the sewer bills to all sewer customers. The Sewer Department regularly updates the public on ongoing Capital Improvements Projects on Facebook, Twitter and the Town webpage.



## ANNUAL AVERAGE AND MAXIMUM MONTH I/I ESTIMATES

### I/I Estimates

Table 1 below includes I/I Estimates as calculated between January 1, 2019 – December 31, 2019. Previous years are listed for reference. In 2019, new artificial intelligence (AI) flow data analyzing software APOLLO was installed at the plant which calculates I/I using proprietary AI algorithms. Apollo began tracking live data in March 2020 and we expect to use this program to estimate I/I moving forward.

The I/I is estimated by reviewing the highest and lowest 7-day moving averages in comparison to the Base Sanitary Flow (BSF) during the same timeframe. The data has been extracted from HachWIMS software. As shown, the WPCF saw substantially lower average annual I/I while also reducing the maximum month I/I. The interceptor relining and manhole rehab projects have resulted in significant decreases in infiltration as seen in the data.

**Table 1: I/I Estimates**

Year	Average Annual I/I (MGD)	Maximum Month I/I (MGD)	WPCF Average Daily Flow (MGD)	Annual Rainfall (inches)
2002 – 2012*	0.3 – 0.5	0.5 – 0.83	1.55 – 1.9	-
2015	0.51	1.65	1.57	26"
2016	0.46	1.05	1.45	29"
2017	0.48	1.99	1.56	43"
2018	0.48	2.15	1.72	48"
<b>2019</b>	<b>0.18</b>	<b>1.43</b>	<b>1.69</b>	<b>48"</b>

\*2013 – 2014 Data not available due to plant failure

Table 1 shows the average annual I/I as well as the maximum monthly I/I, both of which are showing a downward trend. One of the advantages of using APOLLO to track I/I moving forward is that the software can intelligently detect how much I/I flow is from inflow vs. infiltration sources. The software also reads tidal data and can recognize dry-weather infiltration from high tide cycles, which would have been calculated as part of the BSF using traditional I/I calculation methods. We expect that this will result in higher I/I calculations due to tidal infiltration.



## Pump Stations

As shown in Table 2, all of the pump stations also saw a drop in Max Month flow which is an indication of successful I/I reduction.

**Table 2: Pump Station Flows**

		PS1	PS3	PS4	PS5	PS6	PS9	LSA
2018	ANNUAL AVERAGE MGD	0.14	0.12	0.19	0.46	0.08	0.35	0.01
	MAX MONTH MGD	0.29	0.28	0.43	0.61	0.12	0.60	0.07
2019	ANNUAL AVERAGE MGD	0.18	0.11	0.11	0.40	0.08	0.37	0.04
	MAX MONTH MGD	0.22	0.17	0.16	0.49	0.10	0.57	0.06
Change	ANNUAL AVERAGE MGD	29%	-8%	-42%	-13%	0%	6%	300%
	MAX MONTH MGD	-24%	-39%	-63%	-20%	-17%	-5%	-14%



## PLANNED CMOM AND I/I PROJECTS

### AOC Deliverables

The deliverables ordered by the original AOC are complete.

### CMOM Activities

Collection System manholes and sewers are now routinely inspected and uploaded to UtilityCloud in advance of the roadway rehabilitation efforts, this is expected to continue in the years to come. The Town is also utilizing preliminary data received from the SSES and APOLLO programs to identify defects or opportunities to improve efficiency in the system.

The following operations continue into 2020:

- Ongoing collection system salinity checks (using handheld, portable meter)
- Continued support of Hydrogen Sulfide (H<sub>2</sub>S) and Fats, Oils and Grease (FOG) reduction programs:
  - In-pipe bacteria addition of 24 locations; to grow non-sulfide generating bacteria to breakdown FOG within the Pump Station wet-wells and gravity system.
  - Maintain use of wet-well aerators at all Pump Stations, to break up FOG and reduce debris build-up between cleanings. Pump Station #3 aerator scheduled to be replaced in 2019.
  - Plans are to continue the use of Bioxide for 2020 and upgrade the feed system controls system for chemical addition and tracking of data through Evoqua's Vapor link equipment. The VaporLinkR hydrogen sulfide monitor/data logger collects hydrogen sulfide data with a remote, customer interface for improved recording and responsiveness to changes in site conditions. The VaporLink monitor is equipped with a cellular modem that communicates the logged data to Evoqua's Link2SiteR website. Remote personnel will have access to the site-specific data from any location with an internet connection. This will improve the ability to make necessary adjustments to chemical dosing and alarm setpoints quickly and efficiently.

There are many ongoing system projects planned for 2020, some key projects include:

- Headworks and Pump Station structural repairs-project should begin construction in third quarter of 2020
- HVAC system replacement design and construction-project should begin construction in third/fourth quarter of 2020.



- Effluent Pump room and Pump Station 5 pump replacement upgrades-design is expected to begin in the third quarter of 2020 for major rehabilitation
- Pump Station 9 full replacement design is expected to begin in the third quarter of 2020.

Additionally, the Town expects a final Facilities and Resiliency Plan in 2020 which will identify and prioritize many needed upgrades and rehabilitation projects.

### **Sanitary Sewer Evaluation Survey (SSES)**

SSES work planned for 2020 includes flow isolation of up to 75% of the collection system, and CCTV inspection of 50% of pipe flow isolated. SSES work in 2020 will include inspection of every manhole in the system that has not already been inspected to assess its structural integrity and prevalence of infiltration. Work has already begun in 2020. Building inspections targeting illicit sump pump and roof leader/roof drain connections are currently put on hold due to the COVID-19 pandemic, however, may be completed when restrictions are lifted.

Underground piping and assets at the WPCF: This work was scheduled and is currently on hold due to the COVID-19 pandemic. There is considerable underground piping and wiring that has some history of failures, due mainly to corrosion and extended service life. Many of the pipelines have been on-line for over 40 years and require internal inspections and condition assessments, which will require by-pass pumping and/or similar measures to do the actual condition assessments, and during any upgrade work. The condition assessment will include specific tasks such as digging some test pits to expose underground piping, removing some sections of piping for evaluation by a corrosion engineer, ultra-sonic thickness testing, CCTV and other similar condition assessment techniques. Piping to be evaluated includes:

1. Influent 36-inch line from headworks to each influent wet well – COMPLETED – scheduled for rehabilitation in second quarter of 2020.
2. Influent pumps 8-inch and 16-inch force mains
3. Effluent pumps 16-inch force main
4. Other underground piping
  - a. Building roof drain lines
  - b. Plant Water System underground piping and hydrants
  - c. Underground Town Water piping within the plant site
  - d. Underground RAS/WAS/Scum piping
  - e. Clarifier influent 16-inch CI feed piping (both primary and secondary) and 20-inch CI (secondary) effluent piping
  - f. Storm drains
  - g. Other misc. underground piping





## **FIGURES:**

### **Figure 1**

Map of Collection System Investigations

### **Figure 2**

Map of Sanitary Sewer Overflows (SSO's)



2019 Manhole Inspections	178
2019 CCTV Inspections	22,000 LF
2019 Smoke Testing	127,000 LF

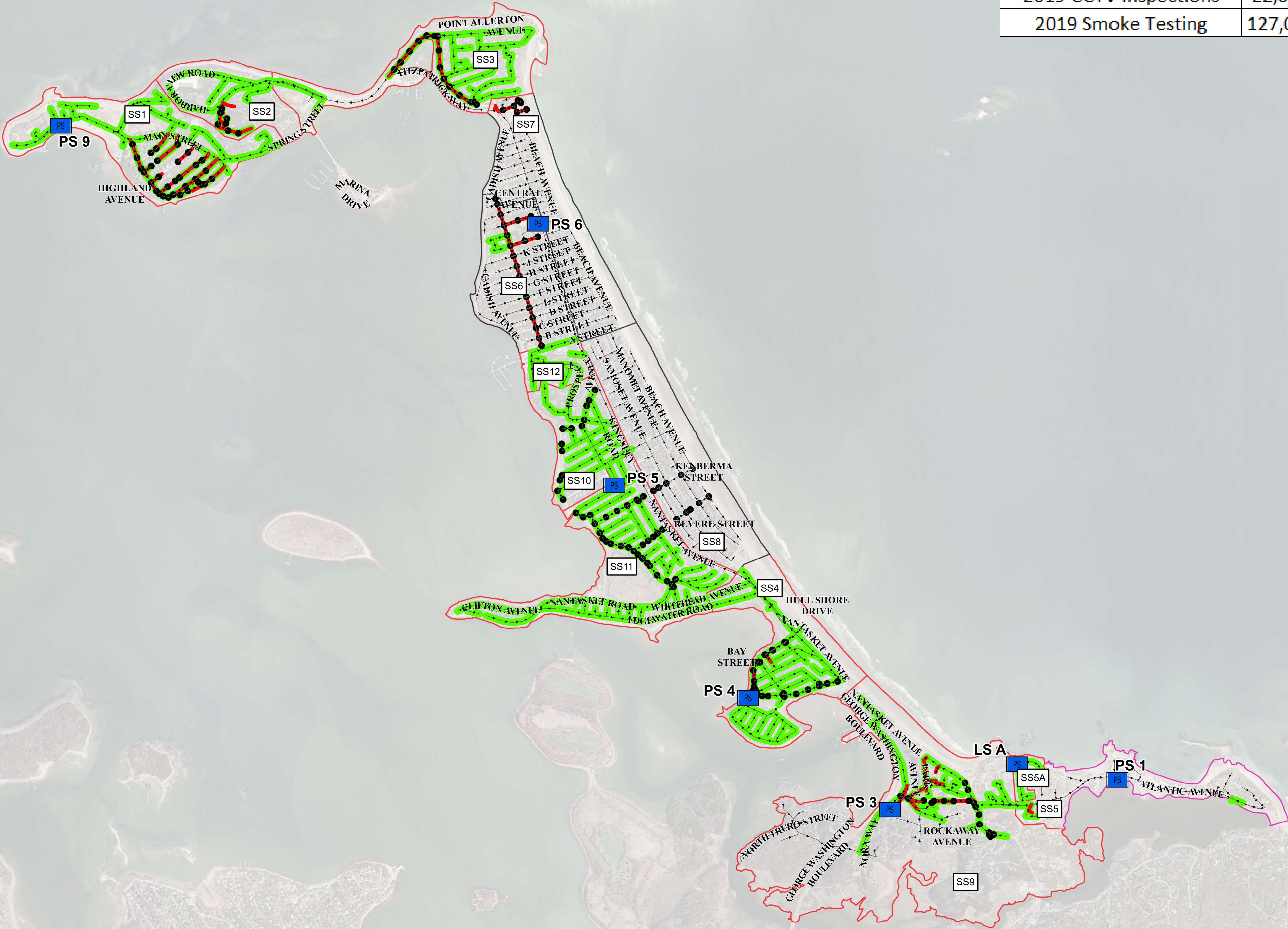
CMOM 2019  
UPDATE

Sanitary Sewer  
Collection System  
Hull, MA



Legend

- Sewer Pump Stations
- Sewer Gravity Main
- 2019 MH Inspections
- 2019 CCTV Inspections
- 2019 Smoke Testing
- Sewer Basins**
  - Smoke Testing Basin
  - PVC Basin
  - 2019 Rehab



REV	DESCRIPTION	DATE
DESIGNED BY: CG	CHECKED BY: PL	
DRAWN BY: CG		

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0 225 450 900 Feet







SSO ID	Date	Estimated Volume (gal)	Release to Town MS4?	Cause
1	5/16/2019	500	Yes	Broken force main pipe near building
2	6/7/2019	1000	No	Service lateral from building blocked at interceptor
3	7/14/2019	< 10	No	3-inch gravity sewer lateral blocked
4	8/26/2019	< 100	No	Broken force main pipe near building
5	8/29/2019	< 50	Yes	Vector truck safety ball check valve mechanical failure
6	12/9/2019	7000	Yes	Discharge end of a bypass pipe hit by a tractor trailer truck

### 2019 Sanitary Sewer Overflows (SSOs)

Sanitary Sewer Collection System  
Hull, MA



#### Legend

- 2019 SSOs
- PS SEWER PUMP STATION
- Sewer Basin
  - Smoke
  - Testing Basin
  - PVC Basin
  - 2019 Rehab

REV	DESCRIPTION	DATE
1	ISSUED BY: CS	DESIGNED BY: CS
2	DESIGNED BY: CS	DESIGNED BY: CS



## **APPENDIX A: CMOM ACTION PLAN CHECKLIST TABLE 3-1:WPCF IMPLEMENTATION SCHEDULE AND COLLECTION SYSTEM 2019 PLAN**

Equipment/Process Cited	Deficiency (per inspection reports)	Corrective Action Planned	Implementation Schedule
Headworks Screening	Manual bar screens only, mechanical screen was Inoperable; headworks influent gate removed	New mechanical screen installed and operating. The influent gate was replaced Fall 2018.  Structural repairs and HVAC upgrades in progress	Completed 2018  Designs Completed 2019 Construction Planned 2020
Primary Clarifiers	Lack of Redundancy, only 1 in service	<i>Short term actions:</i> Both clarifiers are only used for high flow management, the fully functional clarifier is used seasonally and taken offline during summer season for improved odor and sludge control during summer season.  <i>Long term actions:</i> Evaluate future use and/or repurposing of primary clarifiers during unit process evaluation.	In Progress 2018  Facility Plan 2019 Completed Long Term Recommendations
Aeration Tanks	Lack of Redundancy, 2 out of 4, out of service	<i>Short term actions:</i> Rehabilitated both mechanical aerators; some RAS piping needs replacement).  <i>Long term actions:</i> Review activated sludge process options to determine long term modifications to the aeration tanks and secondary treatment process.	Completed 2018  Facility Plan 2019 Completed Long Term Recommendations
Secondary Clarifiers	Lack of Redundancy, only 1 in service	Both secondary clarifiers are partially functional [RAS draft tube system is not functional in either clarifier], but plant has been able to maintain compliance by pulling RAS and WAS from the WAS pits. Typically, one unit in service during normal flows, a second unit is put on-line during high flow events, but operational inspection is required. <i>Short term actions:</i> Performed inspection of one clarifier RAS line and found major corrosion in the piping; suspect same condition in the other  <i>Long term actions:</i> Evaluate process alternatives and then determine repair or replacement of the clarifiers.	Inspections Completed and Short Term Gear boxes Purchased install in 2020  Part of 2019 SRF funded Facility and Resiliency Plan
Gravity Sludge Thickeners	Lack of Redundancy, only 1 in service	Gravity Thickener #2 has been abandoned-in-place, and Gravity Thickener #1 is functional, but offline during summer months for odor control and sludge management. Long term use of Gravity Thickeners for sludge processing will be considered during unit process assessment, and tanks may be repurposed for other use.	Short Term Gear Box Replacement Purchased – Install 2020 Part of 2019 SRF funded Facility and Resiliency Plan
Sludge Holding Tanks	Need work and corrosion corrective maintenance/repairs	Above-ground Holding Tank was drained, cleaned and repaired, and is in use. Sludge Holding Tank #2 is in use. Sludge Holding Tank # 1 is offline and needs aeration diffusers.	Detailed Cleaning and Inspection of SHT#1 Completed  Part of 2019 SRF funded Facility and Resiliency Plan
Rotary Drum Thickener	Old, Corroded and Operable with no redundancy	Extensive corrosion corrective maintenance was performed, and RDT back to full operation. However, redundancy will be considered as a part of unit process review. Continued Maintenance and Repairs to keep RST functional for Spring thru Fall – Winter rebuilds done 2019/2020	Part of 2019 SRF funded Facility and Resiliency Plan
Disinfection (Chlorination and Dechlorination)	Temporary replacement post-disaster recovery, seems to be operating well	System is fully operational, but a more permanent stormproof solution to be considered during unit process review. Some Hypochlorite distribution tubing permanent repairs need to be implemented, pump and some containment area temporary repairs have been made.	Hypochlorite Pump System piping Replacement Completed 2019 Part of 2019 SRF funded Facility and Resiliency Plan
Building	Temporary offices still in parking lot	Temporary HVAC is still in place in the Control building, HVAC upgrades and office space repairs are under design by Tighe & Bond.	In Process – funded under Town Bonds 90% Design Completed 2019
Emergency Diversion Pump	Available to be set up	Godwin diversion pump set up to bypass headworks and will be used as bypass pump for Headworks channel repairs. Long term resiliency and placement under review if changes are needed.	In Process 2019
Emergency Generators	Smaller one needs preventative maintenance to be operable	Both generators and transfer switches have been repaired and are operational; Preventative maintenance ongoing as required. UST was removed and the new AST fuel tank installation was completed in early 2019. Both Generators ready and functional.	Completed 2019



## **APPENDIX B: 2019 COLLECTION SYSTEM WORK ORDERS**

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class	View
1/27/2019 14:02	10815	Sewer 6" VC Pipe on BAY ST.	Hull Sewer Main	Struzziery, John	CCTV Data Upload	<a href="#">View</a>
1/14/2019 11:42	11000	Sewer 8" VC Pipe on ATLANTIC AVE.	Hull Sewer Main	Struzziery, John	CCTV Data Upload	<a href="#">View</a>
6/10/2019 15:17	03-110	14 CREST RD	Hull Parcels	Sutton, Eric	Generic WO	<a href="#">View</a>
8/2/2019 15:01	06-042-A	88 SPRING ST	Hull Parcels	Sutton, Eric	Generic WO	<a href="#">View</a>
9/3/2019 13:56	1 Worrick Rd	1 Worrick Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Generic WO	<a href="#">View</a>
3/6/2019 13:10	10239	Sewer 8" AC Pipe on CADISH AVE	Hull Sewer Main	Boornazian, Bill	Generic WO	<a href="#">View</a>
8/6/2019 14:42	10330	Sewer 8" AC Pipe on R.R. BED	Hull Sewer Main	Sutton, Eric	Generic WO	<a href="#">View</a>
3/7/2019 13:00	11-004	869 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Generic WO	<a href="#">View</a>
12/11/2019 10:04	35 N Truro St	35 N Truro St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Generic WO	<a href="#">View</a>
8/12/2019 13:43	47-106	155 NORTH TRURO ST	Hull Parcels	Boornazian, Bill	Generic WO	<a href="#">View</a>
6/18/2019 8:20	MH-20018	MH-20018	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
3/8/2019 10:51	MH-20164	MH-20164	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
11/26/2019 20:22	MH-20174	MH-20174	Sanitary Manhole	Sutton, Eric	Generic WO	<a href="#">View</a>
8/9/2019 9:07	MH-20460	MH-20460	Sanitary Manhole	Sutton, Eric	Generic WO	<a href="#">View</a>
3/14/2019 15:17	MH-20834	MH-20834	Sanitary Manhole	Sutton, Eric	Generic WO	<a href="#">View</a>
3/14/2019 12:57	MH-20835	MH-20835	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
3/14/2019 13:02	MH-20836	MH-20836	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
5/23/2019 13:59	MH-20836	MH-20836	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
5/23/2019 14:09	MH-20889	MH-20889	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
2/13/2019 15:00	MH-20919	MH-20919	Sanitary Manhole	Boornazian, Bill	Generic WO	<a href="#">View</a>
6/24/2019 15:11	MH-20937	MH-20937	Sanitary Manhole	Sutton, Eric	Generic WO	<a href="#">View</a>
9/12/2019 10:06	1 Dighton St	1 Dighton St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
9/3/2019 13:48	1 Worrick Rd	1 Worrick Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
1/17/2019 10:11	101 Rockaway Ave	101 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Piepenbrink, Cody	Hull - Grinder Pump Maintenance	<a href="#">View</a>
8/10/2019 9:29	101 Rockaway Ave	101 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
9/18/2019 8:48	101 Rockaway Ave	101 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
7/12/2019 14:53	14 Dellawanda Rd	14 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	<a href="#">View</a>
12/13/2019 17:00	14 Nantasket Ave	14 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	<a href="#">View</a>
4/12/2019 9:06	20 Nantasket Ave	20 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
4/14/2019 14:13	21 Richards Rd	21 Richards Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
8/12/2019 13:48	26 Dellawanda Rd	26 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	<a href="#">View</a>
8/22/2019 9:48	28 Barnstable St	28 Barnstable St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
9/30/2019 8:55	3 Dellawanda Rd	3 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
12/13/2019 12:42	34 Rockaway Ave	34 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
5/10/2019 14:29	37 Elm Ave	37 Elm Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
10/18/2019 8:49	42 Wyola Rd	42 Wyola Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Hull - Grinder Pump Maintenance	<a href="#">View</a>
7/10/2019 11:36	44 Chatham St	44 Chatham St Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	<a href="#">View</a>
7/2/2019 9:14	44 Chatham St	44 Chatham St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
4/2/2019 15:13	50 Nantasket Ave	50 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Piepenbrink, Cody	Hull - Grinder Pump Maintenance	<a href="#">View</a>
4/16/2019 8:55	69 Gosnold St	69 Gosnold St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance	<a href="#">View</a>
4/17/2019 14:50	7 Salisbury St	7 Salisbury St Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	<a href="#">View</a>
3/10/2019 12:00	87 Rockaway Ave	87 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Hull - Grinder Pump Maintenance	<a href="#">View</a>

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[illegible]

[illegible]

[illegible]

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11/14/2019 14:20	Bateria UNIT #9	UNIT #9	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units	<a href="#">View</a>
9/11/2019 14:06	Bateria UNIT #9	UNIT #9	Hull In Pipe Bacteria Unit	Holman, Ryan	Hull - In Pipe Bacteria Units	<a href="#">View</a>
4/2/2019 20:27	01-002-A	2 A PEMBERTON WHARF	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 13:45	01-013	26 HELEN STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
11/15/2019 10:13	02-022	18 CHANNEL ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 13:47	03-108	12 CREST RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
7/5/2019 14:24	03-122	6 CUSHING ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/17/2019 13:41	04-081	0 NEWTON ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/2/2019 14:14	05-027	10 VAUTRINOT AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 13:44	05-042	45 VAUTRINOT AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
2/7/2019 12:15	05-102	1 MAIN ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
1/30/2019 14:51	06-071	6 MAIN ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/20/2019 10:31	06-075	25 JAMES AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/11/2019 10:25	06-075	25 JAMES AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/20/2019 10:26	06-076	27 JAMES AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 13:48	07-014	42 DUCK LANE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/28/2019 11:13	07-025	1133 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/28/2019 10:56	07-026	1131 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
10/9/2019 12:54	07-026	1131 NANTASKET AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
4/16/2019 14:13	08-017	1033 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:42	09-001	911 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/26/2019 14:56	09-002	915 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/26/2019 14:59	09-005	927 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:18	09-013	0 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 14:56	09-017	955 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
2/26/2019 15:01	09-017	955 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:17	09-020	0 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:16	09-028	0 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:15	09-033	0 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:14	09-040	0 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/11/2019 10:49	09-048	1 PT ALLERTON AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
7/2/2019 14:21	09-059	1 HOLBROOK AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/3/2019 11:58	10-033	52 PT ALLERTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/11/2019 13:57	10-085	23 BLUFF RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 14:51	10245	Sewer 8" VC Pipe on MAYFLOWER RD.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 14:54	10246	Sewer 8" VC Pipe on Y ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 14:52	10247	Sewer 8" VC Pipe on MAYFLOWER RD.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:04	10275	Sewer 8" AC Pipe on V ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 14:55	10281	Sewer 8" VC Pipe on X ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 15:11	10283	Sewer 8" AC Pipe on U ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 14:56	10290	Sewer 8" VC Pipe on X ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:01	10301	Sewer 8" AC Pipe on W ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:06	10314	Sewer 8" AC Pipe on V ST.	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>

3/13/2019 7:17		10339 Sewer 10" AC Pipe on P ST.	Hull Sewer Main	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/19/2019 10:31		10896 GEORGE WASHINGTON BLVD. 14" DI Force Main	Hull Sanitary Force Main	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/26/2019 15:05	11-003	867 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/8/2019 10:54	11-004	869 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 10:49	11-005	873 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:36	11-006	875 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:35	11-007	879 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:34	11-008	881 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:37	11-009	883 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/26/2019 14:53	11-010	887 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:38	11-011	895 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:39	11-012	903 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:43	11-013	909 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:41	11-014	1 TIERNEY AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/26/2019 15:03	11-035	902 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:40	11-036	894 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:33	11-039	0 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/26/2019 14:55	11-043	874 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/3/2019 13:17	11-043	874 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/8/2019 10:49	11-058	864 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/27/2019 9:30	11-059	862 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/29/2019 9:01	12-020	22 MAYFLOWER RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/29/2019 9:03	12-021	18 MAYFLOWER RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/29/2019 9:07	12-022	14 MAYFLOWER RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/12/2019 14:57	12-024	6 MAYFLOWER RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 8:44	12-025	7 Y STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:13	12-028	15 MAYFLOWER RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/29/2019 8:56	12-029	13 MAYFLOWER RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/29/2019 9:12	12-030	11 MAYFLOWER RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/29/2019 8:51	12-031	9 MAYFLOWER RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/13/2019 13:30	12-033	6 BEACON RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:18	12-034	4 BEACON RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:17	12-035	2 BEACON RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:54	12-036	3 W STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:55	12-037	5 W STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:56	12-039	6 X STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:53	12-040	353 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:56	12-041	8 X STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 11:03	12-043	3 X STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 11:02	12-044	5 X STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 11:02	12-045	7 X STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 11:01	12-046	9 X STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>



3/12/2019 11:00	12-047	359 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/25/2019 15:03	12-048	361 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 15:05	12-049	18 Y STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 15:04	12-050	363 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:52	12-075	351 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:51	12-076	349 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:50	12-077	347 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:49	12-078	345 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:48	12-079	19 V STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:47	12-080	13 V STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:47	12-081	836 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/5/2019 11:47	12-081	836 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:53	12-083	10 W STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
12/26/2019 13:46	12-083	10 W STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:52	12-084	14 W STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:49	12-085	341 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:25	12-086	339 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/25/2019 14:59	12-087	337 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/8/2019 11:10	12-088	21 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:09	12-089	19 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:08	12-090	17 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:06	12-091	826 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
6/28/2019 13:23	12-091	826 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/5/2019 11:28	12-091	826 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/8/2019 11:07	12-091-A	15 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/5/2019 11:43	12-092	828 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:44	12-093	830 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/5/2019 11:45	12-093	830 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 10:45	12-094	14 V STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 10:46	12-095	16 V STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
1/18/2019 12:34	12-098	18 V STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
7/2/2019 7:13	12-106	839 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/2/2019 7:12	12-108	843 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/2/2019 7:11	12-109	845 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/8/2019 11:03	13-001	335 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:47	13-002	333 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
11/19/2019 10:54	13-002	333 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:48	13-003	331 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:49	13-004	329 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:10	13-007	20 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:09	13-008	18 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:08	13-009	16 U STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/8/2019 11:07	13-010	822 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>

4/2/2019 12:14	13-010	822 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:27	13-010	822 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 12:18	13-011-A	818 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:25	13-011-A	818 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:46	13-015	27 T STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:39	13-018	821 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/15/2019 11:03	13-022	170 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:58	13-023	168 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:45	13-024	327 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:43	13-025	323 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:41	13-026	321 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:44	13-027	28 T STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
6/10/2019 15:21	13-030	22 T STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 11:53	13-031	814 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:19	13-031	814 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 9:38	13-032	810 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
12/27/2019 12:27	13-032	810 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:42	13-035	31 S STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/5/2019 11:16	13-037	809 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/21/2019 14:41	13-046	166 CADISH AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
1/30/2019 14:49	13-046	166 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:56	13-047	162 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:55	13-048	160 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:54	13-049	158 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:41	13-055	317 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:39	13-057	315 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:37	13-058	313 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:40	13-059	34 S STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
4/2/2019 9:46	13-063	808 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:10	13-063	808 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
12/27/2019 12:30	13-063	808 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 9:53	13-064	806 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:09	13-064	806 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 9:59	13-065	804 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:03	13-065	804 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 10:10	13-066	802 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
9/5/2019 11:01	13-066	802 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:38	13-071	39 R STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/5/2019 11:05	13-072	805 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/5/2019 11:14	13-073-A	807 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:50	13-080	154 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:49	13-081	152 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:47	13-082	150 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>

3/25/2019 14:45	13-083	148 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/28/2019 11:49	13-084	1 R STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
11/7/2019 8:51	13-086	9 R STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:36	13-093	311 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:35	13-094	309 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:34	13-095	307 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:33	13-096	305 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/5/2019 10:58	13-101	800 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/5/2019 10:55	13-102	798 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/5/2019 10:52	13-103	794 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:37	13-107	43 Q STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/28/2019 11:46	13-121	140 CADISH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/28/2019 11:43	13-122	5 Q STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:31	13-133	303 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:30	13-134	301 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:28	13-135	299 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:32	13-137	42 Q STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:29	13-145	49 P STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/25/2019 14:41	13-170	132 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:39	13-171	130 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:38	13-172	128 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 13:45	14-002	44 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/16/2019 15:04	14-011	17 H STREET	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
4/16/2019 13:46	14-047	2 K STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:01	14-079	96 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/14/2019 9:43	14-080	94 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/26/2019 12:55	14-090	3 M STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:21	14-097	102 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:23	14-098	106 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/28/2019 15:05	14-106	12 O STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/25/2019 14:29	14-109	114 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
1/30/2019 14:47	14-110	112 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:25	14-111	110 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:28	14-111	110 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:35	14-121	118 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 14:03	14-121	118 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:36	14-126	122 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/25/2019 14:31	14-127	120 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 13:48	14-128	15 O STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
7/17/2019 14:44	15-102	69 K STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 15:07	15-107	62 L STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:10	15-109	60 L STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
4/2/2019 11:10	15-112	50 L STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>

4/2/2019 10:54	15-113	754 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/12/2019 15:08	15-117	65 L STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:21	15-118	269 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:22	15-120	271 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:24	15-122	58 M STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
4/2/2019 10:28	15-126	760 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
4/2/2019 10:41	15-127	758 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 15:23	15-132	57 M STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:23	15-133	273 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 12:17	15-134	275 BEACH AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 12:26	15-135	60 N STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 12:33	15-136	58 N STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 12:51	15-155	55 N STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 12:43	15-156	283 BEACH AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 12:53	15-157	285 BEACH AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 12:58	15-158	54 O STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 15:24	15-159	0 O STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
8/30/2019 7:23	15-170	32 O STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:26	15-188	51 O STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 13:09	15-189	53 O STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/18/2019 15:27	15-191	295 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:27	15-192	48 P STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
10/3/2019 13:15	16-002	32 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/19/2019 14:59	16-004	28 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/16/2019 15:05	16-005	26 SUNSET AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
4/16/2019 13:41	16-007	22 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 13:40	16-013	8 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/13/2019 13:04	16-014	4 SUNSET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
1/30/2019 14:41	16-014	4 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/6/2019 10:40	16-039-A	53 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/16/2019 15:02	16-042	16 H STREET	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
4/4/2019 9:10	16-072	8 G STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/12/2019 13:59	16-077	36 CADISH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/19/2019 15:03	16-077	36 CADISH AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
6/21/2019 9:06	16-095	16 F STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 13:38	16-126	3 C STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/6/2019 10:37	16-154	37 G STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
1/28/2019 11:35	16-163	42 G STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/5/2019 2:45	16-174	45 F STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/18/2019 8:42	16-187	40 CENTRAL AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:43	16-191	35 E STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/18/2019 15:42	16-193	39 E STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/12/2019 12:07	16-195	43 E STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>

3/12/2019 12:05	16-196	45 E STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/18/2019 15:45	16-201	38 E STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/12/2019 13:57	16-206	28 E STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
12/27/2019 12:32	16-225	33 35 C STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/1/2019 13:19	17-126	77 E STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/23/2019 12:03	17-126	77 E STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 14:51	17-137	712 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
3/13/2019 12:56	17-170-A	727 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
1/30/2019 14:44	17-170-A	727 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/1/2019 13:41	17-189	728 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/29/2019 11:39	17-191	724 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/20/2019 8:05	18-006	40 C STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/1/2019 12:01	18-061	35 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/23/2019 12:06	18-061	35 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/23/2019 12:11	18-062	37 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/28/2019 14:48	18-064	675 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/16/2019 13:36	18-069-A	1 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/15/2019 11:21	18-140	17 MILFORD ST	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/19/2019 13:58	19-008	654 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/7/2019 10:53	19-018	209 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/29/2019 11:28	19-039	171 MANOMET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
2/25/2019 13:33	20-135	27 MILFORD ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/13/2019 14:38	20199-20199a	Sewer Main	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:39	20199a-20199b	Sewer Main	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:41	20199B-20199C	Sewer Main	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:43	20199C-20221	Sewer Main	Hull Sewer Main	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
10/29/2019 14:37	21-096	600 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/29/2019 14:41	21-098	7 HADASSAH WAY	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/5/2019 8:26	22-162	243 KINGSLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/25/2019 12:56	22-168	156 BROCKTON CIRCLE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/5/2019 8:19	23-010	114 DRAPER AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/26/2019 14:49	23-017	569 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/28/2019 13:30	23-047	103 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/19/2019 14:57	23-083	131 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/19/2019 13:54	23-106	110 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/23/2019 13:44	24-014	30 KENBERMA ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/23/2019 13:40	24-023	35 KENBERMA ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
1/29/2019 11:02	24-043	159 KINGSLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/19/2019 10:53	24-072	49 WARFIELD AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/4/2019 14:12	24-157	82 PACKARD AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/1/2019 18:51	25-069	39 MASSASOIT AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/25/2019 9:34	25-098	31 MALTA ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/25/2019 10:22	25-146	6 MASSASOIT AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>

10/25/2019 10:20	25-150	5 MASSASOIT AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/19/2019 10:51	26-137	24 STAFFORD RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/2/2019 14:32	26-154	131 KINGSLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/2/2019 11:41	26-170	515 NANTASKET AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
11/1/2019 13:53	27-004	27 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/7/2019 11:36	27-085	410 NANTASKET AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
11/1/2019 14:03	27-137	11 WHITEHEAD AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/19/2019 10:49	28-021	52 SUMNER ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/13/2019 13:56	28-034	42 BELMONT ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/15/2019 10:33	28-060	15 FAIR ST	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/12/2019 10:47	29-012	43 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/10/2019 8:39	29-033	87 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
1/30/2019 14:38	29-101	3 SECOND ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
5/28/2019 13:22	29-101	3 SECOND ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/1/2019 14:09	29-110	48 WHITEHEAD AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/23/2019 13:09	30-052	2 EIGHTH STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/25/2019 13:11	31-003	36 CLIFTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/28/2019 13:52	31-084	239 NANTASKET RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 12:15	31-085	236 NANTASKET RD	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
2/7/2019 11:05	32-010	59 CLIFTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 14:41	32-047	285 NANTASKET RD	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
6/21/2019 9:02	33-049	132 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/28/2019 14:30	33-119	120 BAY STREET	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
9/11/2019 14:07	33-143	40 MERRILL RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/29/2019 7:59	34-006	21 BAY STREET	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
6/21/2019 14:37	35-022	89 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/24/2019 15:06	35-027	99 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/21/2019 14:31	35-030	105 BAY STREET	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/20/2019 10:40	35-032	19 ISLAND VIEW RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/11/2019 13:27	35-103	8 MERRILL RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/5/2019 15:23	36-024	11 MORELAND AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
7/17/2019 13:57	36-065	11 LINCOLN AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/17/2019 18:12	36-087	134 HAMPTON CIRCLE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/7/2019 11:56	37-004	189 NANTASKET AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
8/7/2019 11:52	37-007	48 GEO WASH BLVD	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
4/12/2019 12:16	38-012	15 BERKLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
12/20/2019 12:42	38-012	15 BERKLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/7/2019 14:14	38-024	163 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/10/2019 15:26	38-024	163 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/7/2019 14:11	38-025	165 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/27/2019 18:49	38-025	165 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/19/2019 13:26	38-026	169 A NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/21/2019 8:35	39-006	1 ROCKLAND HOUSE RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>



3/18/2019 11:43	39-156	45 PARK AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
6/21/2019 8:59	43-009	72 WYOLA RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
2/19/2019 14:21	43-073	7 DELLAWANDA RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/11/2019 14:04	47-039	200 NORTH TRURO ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/1/2019 14:34	47-226	0 SOUTH TRURO ST	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/21/2019 8:52	49-075	16 VALLEY BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
6/21/2019 8:57	51-028	208 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/23/2019 13:42	51-050	242 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/19/2019 14:55	52-066	14 GUN ROCK AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
9/11/2019 14:05	53-031	126 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 14:29	54-001	40 ATLANTIC AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
6/26/2019 10:55	54-009-A	38 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
8/7/2019 12:22	54-014	32 REEF POINT	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
7/12/2019 13:55	54-015	26 REEF POINT	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
4/16/2019 8:02	54-044	82 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
4/9/2019 14:27	55-005	8 SUMMIT AVE	Hull Parcels	Piepenbrink, Cody	Hull - Markout	<a href="#">View</a>
6/26/2019 11:04	55-007	4 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/19/2019 14:58	55-007	4 ATLANTIC AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
9/19/2019 15:00	55-007	4 ATLANTIC AVE	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
7/1/2019 13:56	55-008	2 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
7/17/2019 14:23	55-011	1 SUMMIT AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
3/19/2019 15:01	56-007	1180 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
9/12/2019 11:54	56-009	1176 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
11/13/2019 13:40	56-014	56 HARBOR VIEW RD	Hull Parcels	Sutton, Eric	Hull - Markout	<a href="#">View</a>
10/9/2019 12:59	56-014	56 HARBOR VIEW RD	Hull Parcels	Holman, Ryan	Hull - Markout	<a href="#">View</a>
3/12/2019 15:07	F_823812_2934408	267 BEACH AVE	Hull Parcels	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:32	HULL_MH-20199a	MH-20199a	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:33	HULL_MH-20199b	MH-20199b	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:33	HULL_MH-20199c	MH-20199c	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:31	MH-20199	MH-20199	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:36	MH-20199	MH-20199	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:30	MH-20204	MH-20204	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/13/2019 14:35	MH-20221	MH-20221	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:03	MH-20230	MH-20230	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
3/12/2019 15:09	MH-20378	MH-20378	Sanitary Manhole	Boornazian, Bill	Hull - Markout	<a href="#">View</a>
1/24/2019 12:11	02-049	1 ADDUCI WAY	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
1/31/2019 7:55	05-047	63 VAUTRINOT AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
10/12/2019 11:08	05-077	71 HIGHLAND AVE	Hull Parcels	Holman, Ryan	Hull - Sewer Backup	<a href="#">View</a>
11/29/2019 10:24	05-100	11 JAMES AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
11/12/2019 18:04	07-024	1135 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
11/26/2019 19:44	09-052	15 PT ALLERTON AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
1/24/2019 15:13	10-041	36 PT ALLERTON AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
8/8/2019 8:51	13-071	39 R STREET	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>

12/6/2019 14:43	14-047	2 K STREET	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
12/27/2019 22:01	23-065	113 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
2/26/2019 12:03	23-090	568 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
6/27/2019 7:10	26-107	24 REVERE ST	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
6/10/2019 11:06	28-103	407 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
8/2/2019 14:57	29-103	10 SECOND ST	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
10/3/2019 8:51	29-149	58 WESTMINSTER RD	Hull Parcels	Holman, Ryan	Hull - Sewer Backup	<a href="#">View</a>
10/3/2019 15:07	33-138	32 PORRAZZO RD	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
5/3/2019 15:00	34-083	4 BAY ST	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
7/15/2019 14:46	34-093	276 NANTASKET AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
11/21/2019 13:38	34-097	247 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
11/9/2019 12:10	35-122	98 BAY STREET	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
8/19/2019 8:54	36-125	7 ANDREW RD	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
11/1/2019 12:11	39-005	101 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
7/5/2019 8:37	53-023	135 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
2/15/2019 15:55	53-045	106 ATLANTIC AVE	Hull Parcels	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
8/1/2019 11:50	MH-20293	MH-20293	Sanitary Manhole	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
6/5/2019 13:14	MH-20782	MH-20782	Sanitary Manhole	Sutton, Eric	Hull - Sewer Backup	<a href="#">View</a>
7/7/2019 11:39	MH-30104	MH-30104	Sanitary Manhole	Boornazian, Bill	Hull - Sewer Backup	<a href="#">View</a>
3/16/2019 9:31	03-034	173 SPRING ST	Hull Parcels	Piepenbrink, Cody	Hull - Sewer Customer Complaint	<a href="#">View</a>
4/9/2019 10:24	14-088	80 CENTRAL AVE	Hull Parcels	Piepenbrink, Cody	Hull - Sewer Customer Complaint	<a href="#">View</a>
3/27/2019 15:16	MH-20006	MH-20006	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
5/6/2019 14:24	MH-20016	MH-20016	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
7/15/2019 11:38	MH-20107	MH-20107	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
5/7/2019 16:12	MH-20125	MH-20125	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:53	MH-20170	MH-20170	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/25/2019 9:24	MH-20170	MH-20170	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:48	MH-20173	MH-20173	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:41	MH-20183	MH-20183	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
3/8/2019 11:01	MH-20184	MH-20184	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:27	MH-20186	MH-20186	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:22	MH-20191	MH-20191	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:19	MH-20192	MH-20192	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:14	MH-20214	MH-20214	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/18/2019 9:06	MH-20219	MH-20219	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
9/27/2019 10:08	MH-20224	MH-20224	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	<a href="#">View</a>
4/9/2019 10:19	MH-20250	MH-20250	Sanitary Manhole	Piepenbrink, Cody	MH Frame & Cover Inspection	<a href="#">View</a>
6/19/2019 15:02	MH-20285	MH-20285	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:29	MH-20299	MH-20299	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:26	MH-20309	MH-20309	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:23	MH-20321	MH-20321	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
9/4/2019 13:58	MH-20324	MH-20324	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:20	MH-20325	MH-20325	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>



4/22/2019 10:18	MH-20332	MH-20332	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
3/8/2019 14:41	MH-20340	MH-20340	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:15	MH-20345-1	MH-20345-1	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:12	MH-20355	MH-20355	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/22/2019 10:09	MH-20360	MH-20360	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/7/2019 16:07	MH-20379	MH-20379	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:12	MH-20379	MH-20379	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
6/25/2019 9:03	MH-20389	MH-20389	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:17	MH-20454	MH-20454	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/11/2019 19:19	MH-20458	MH-20458	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
11/1/2019 12:20	MH-20458	MH-20458	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
2/14/2019 11:22	MH-20466	MH-20466	Sanitary Manhole	Piepenbrink, Cody	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:03	MH-20471	MH-20471	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 11:59	MH-20491	MH-20491	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
8/9/2019 9:04	MH-20491	MH-20491	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/11/2019 14:16	MH-20520	MH-20520	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
7/24/2019 15:04	MH-20520-1	MH-20520-1	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 11:54	MH-20541	MH-20541	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/7/2019 16:05	MH-20542	MH-20542	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/26/2019 13:39	MH-20543	MH-20543	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/11/2019 14:14	MH-20543A-1	MH-20543A-1	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
7/15/2019 14:29	MH-20568A-1	MH-20568A-1	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
6/27/2019 13:58	MH-20568A-1	MH-20568A-1	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:22	MH-20607	MH-20607	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:08	MH-20611	MH-20611	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:25	MH-20630-1	MH-20630-1	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
10/29/2019 14:15	MH-20664-1	MH-20664-1	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
11/7/2019 13:13	MH-20695	MH-20695	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
7/15/2019 14:26	MH-20712	MH-20712	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:33	MH-20748	MH-20748	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
2/21/2019 15:29	MH-20770	MH-20770	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
2/21/2019 15:26	MH-20779	MH-20779	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
6/23/2019 10:32	MH-20818	MH-20818	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:29	MH-20820	MH-20820	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
3/8/2019 12:33	MH-20835	MH-20835	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
5/7/2019 16:09	MH-20836	MH-20836	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
7/30/2019 14:41	MH-20836	MH-20836	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/23/2019 14:00	MH-20839	MH-20839	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
2/11/2019 9:30	MH-20919	MH-20919	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
4/11/2019 14:12	MH-20949	MH-20949	Sanitary Manhole	Boornazian, Bill	MH Frame & Cover Inspection	<a href="#">View</a>
7/30/2019 14:36	MH-30016	MH-30016	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
7/30/2019 14:38	MH-30017	MH-30017	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
8/12/2019 13:25	MH-30017	MH-30017	Sanitary Manhole	Holman, Ryan	MH Frame & Cover Inspection	<a href="#">View</a>

7/30/2019 14:33	MH-30069	MH-30069	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
7/30/2019 14:35	MH-30070	MH-30070	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
5/10/2019 12:43	MH-FMhingham	MH-fmhingham	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection	<a href="#">View</a>
2/11/2019 14:25	MH-20372	MH-20372	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/12/2019 14:34	MH-20379	MH-20379	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/12/2019 14:42	MH-20382	MH-20382	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/12/2019 14:48	MH-20383	MH-20383	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/12/2019 14:57	MH-20384	MH-20384	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 8:51	MH-20387	MH-20387	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 8:57	MH-20389	MH-20389	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 9:13	MH-20411	MH-20411	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 9:20	MH-20423	MH-20423	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 9:39	MH-20440	MH-20440	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 9:43	MH-20442	MH-20442	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 9:47	MH-20446	MH-20446	Sanitary Manhole	Piepenbrink, Cody	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:14	MH-20454	MH-20454	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:18	MH-20459	MH-20459	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:23	MH-20460	MH-20460	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:26	MH-20471	MH-20471	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:30	MH-20473	MH-20473	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:30	MH-20473	MH-20473	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 10:37	MH-20482	MH-20482	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 11:49	MH-20491	MH-20491	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 13:39	MH-20500	MH-20500	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 13:44	MH-20501	MH-20501	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 13:47	MH-20511	MH-20511	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 13:51	MH-20528	MH-20528	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 13:55	MH-20541	MH-20541	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 13:59	MH-20550	MH-20550	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:07	MH-20555	MH-20555	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:11	MH-20567	MH-20567	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:15	MH-20572	MH-20572	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:19	MH-20573	MH-20573	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:22	MH-20575	MH-20575	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:27	MH-20584	MH-20584	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/13/2019 14:29	MH-20585	MH-20585	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:13	MH-20587	MH-20587	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:16	MH-20595	MH-20595	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:19	MH-20596	MH-20596	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:25	MH-20597	MH-20597	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:37	MH-20600	MH-20600	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:42	MH-20607	MH-20607	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 13:49	MH-20608	MH-20608	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>

2/14/2019 13:55	MH-20611	MH-20611	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:03	MH-20612	MH-20612	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:07	MH-20615	MH-20615	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:10	MH-20621	MH-20621	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:13	MH-20626	MH-20626	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:18	MH-20629	MH-20629	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:21	MH-20630	MH-20630	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:27	MH-20640	MH-20640	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:30	MH-20642	MH-20642	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:34	MH-20646	MH-20646	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:38	MH-20650	MH-20650	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 14:58	MH-20660	MH-20660	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/14/2019 15:00	MH-20666	MH-20666	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 9:45	MH-20673	MH-20673	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 9:49	MH-20676	MH-20676	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 9:51	MH-20684	MH-20684	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 9:55	MH-20698	MH-20698	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 9:59	MH-20747	MH-20747	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 10:03	MH-20748	MH-20748	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 10:06	MH-20749	MH-20749	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 11:25	MH-20750	MH-20750	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 11:29	MH-20752	MH-20752	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 11:38	MH-20754	MH-20754	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 11:42	MH-20755	MH-20755	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 11:45	MH-20760	MH-20760	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/15/2019 11:50	MH-20761	MH-20761	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:15	MH-20764	MH-20764	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:19	MH-20765	MH-20765	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:28	MH-20770	MH-20770	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:31	MH-20776	MH-20776	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:34	MH-20779	MH-20779	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:37	MH-20791	MH-20791	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:42	MH-20793	MH-20793	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:45	MH-20794	MH-20794	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:54	MH-20796	MH-20796	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 9:57	MH-20801	MH-20801	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 10:02	MH-20809	MH-20809	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 10:07	MH-20810	MH-20810	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 10:12	MH-20818	MH-20818	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 10:14	MH-20820	MH-20820	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:12	MH-20824	MH-20824	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 11:54	MH-20825	MH-20825	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:16	MH-20826	MH-20826	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>

2/17/2019 14:19	MH-20827	MH-20827	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:23	MH-20828	MH-20828	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:29	MH-20829	MH-20829	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:33	MH-20830	MH-20830	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:38	MH-20831	MH-20831	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 10:40	MH-20852	MH-20852	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 9:38	MH-20856	MH-20856	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 8:15	MH-20873	MH-20873	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 8:06	MH-20875	MH-20875	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 7:04	MH-20885	MH-20885	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 7:31	MH-20896	MH-20896	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 9:06	MH-20896A	MH-20896A	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 8:49	MH-20896B	MH-20896B	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 8:49	MH-20896B	MH-20896B	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
2/17/2019 14:48	MH-20903	MH-20903	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:21	MH-20905	MH-20905	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:25	MH-20906	MH-20906	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:28	MH-20907	MH-20907	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:31	MH-20910	MH-20910	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:35	MH-20911	MH-20911	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:38	MH-20914	MH-20914	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:41	MH-20915	MH-20915	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/11/2019 14:10	MH-20918	MH-20918	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
2/19/2019 11:48	MH-20919	MH-20919	Sanitary Manhole	Boornazian, Bill	NASSCO MACP w Header	<a href="#">View</a>
1/31/2019 15:10	MH-20919	MH-20919	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 9:16	MH-30086	MH-30086	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
5/28/2019 10:25	MH20856A	MH-20856A	Sanitary Manhole	Lyons, Peter	NASSCO MACP w Header	<a href="#">View</a>
8/5/2019 11:15	10352	Sewer 8" AC Pipe on R.R. BED	Hull Sewer Main	Holman, Ryan	Sewer Main Cleaning & CCTV	<a href="#">View</a>
11/22/2019 9:52	10593	Sewer 12" AC Pipe on SAMOSET AVE.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
11/21/2019 12:54	10606	Sewer 12" AC Pipe on SAMOSET AVE.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
11/22/2019 12:00	10617	Sewer 16" AC Pipe on WARREN ST.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
5/23/2019 14:05	10884	Sewer 10" VC Pipe on NANTASKET AVE.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
5/23/2019 14:07	10888	Sewer 10" VC Pipe on NANTASKET AVE.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
4/10/2019 16:20	11015	Sewer 10" VC Pipe on ATLANTIC AVE.	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
4/11/2019 11:54	11081	Sewer 6" VC Pipe on NANTASKET AVE.	Hull Sewer Main	Piepenbrink, Cody	Sewer Main Cleaning & CCTV	<a href="#">View</a>
4/4/2019 7:43	CROSS-COUNTRY SUMMIT AVE-1	Sewer Main	Hull Sewer Main	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
11/21/2019 12:15	MH-20591	MH-20591	Sanitary Manhole	Boornazian, Bill	Sewer Main Cleaning & CCTV	<a href="#">View</a>
6/5/2019 13:09	MH-20782	MH-20782	Sanitary Manhole	Sutton, Eric	Sewer Main Cleaning & CCTV	<a href="#">View</a>
8/8/2019 11:09	1 Dellawanda Rd	1 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 12:23	1 Dighton St	1 Dighton St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:23	1 N Truro St	1 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:52	1 Rowley St	1 Rowley St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:34	1 Worrick Rd	1 Worrick Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>

8/13/2019 11:02	10 Nantasket Ave	10 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:42	10 Orleans St	10 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:20	10 Rockaway Ave	10 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 10:12	10 Worrick Rd	10 Worrick Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:25	101 Rockaway Ave	101 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:44	104 N Truro St	104 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 12:25	11 Dighton St	11 Dighton St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:49	11 N Truro St	11 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 12:02	11 Richards Rd	11 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:44	110 N Truro St	110 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:44	117 Salisbury St	117 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:40	119 N Truro St	119 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 12:24	12 Dighton St	12 Dighton St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 12:14	12 Montana Ave	12 Montana Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:49	12 N Truro St	12 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:19	12 Rockaway Ave	12 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:43	120 N Truro St	120 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:43	122 N Truro St	122 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:36	125 N Truro St	125 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 10:47	13 Eastman Rd	13 Eastman Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:53	13 Richards Rd	13 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
7/11/2019 17:10	14 Dellawanda Rd	14 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:40	14 Dellawanda Rd	14 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 10:50	14 Nantasket Ave	14 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:18	14 Rockaway Ave	14 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:33	145 N Truro St	145 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:03	15 Alsada Rd	15 Alsada Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 10:19	15 Eastman Rd	15 Eastman Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:50	15 Logan Ave	15 Logan Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:08	15 Nantasket Ave	15 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:34	150 N Truro St	150 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:31	155 N Truro St	155 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:33	158 N Truro St	158 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
7/12/2019 8:54	16 Dellawanda Rd	16 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Boornazian, Bill	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:44	16 Dellawanda Rd	16 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:45	16 Dellawanda Rd	16 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:41	16 Orleans St	16 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:47	16 Quanset St	16 Quanset St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:12	16 Shore Gardens Rd	16 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:29	165 N Truro St	165 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:13	17 Shore Gardens Rd	17 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:42	17 Wyola Rd	17 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:31	170 N Truro St	170 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>



8/13/2019 13:52	175 George Washington Blvd	175 George Washington Blvd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:49	18 Logan Ave	18 Logan Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:06	18 Nantasket Ave	18 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:27	18 Rockview Rd	18 Rockview Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:22	18 Shore Gardens Rd	18 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:08	180 George Washington Blvd	180 George Washington Blvd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:26	183 N Truro St	183 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:59	19 Harwich St	19 Harwich St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:54	19 Richards Rd	19 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:43	19 Wyola Rd	19 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:25	195 N Truro St	195 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:21	197 N Truro St	197 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:19	20 Elm Ave	20 Elm Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:34	20 Nantasket Ave	20 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:45	20 Orleans St	20 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:30	20 Rockview Rd	20 Rockview Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:27	200 N Truro St	200 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:22	204 N Truro St	204 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:51	21 Richards Rd	21 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:23	21 Shore Gardens Rd	21 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:16	216 N Truro St	216 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:16	218 N Truro St	218 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:30	22 Rockview Rd	22 Rockview Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:53	23 Orleans St	23 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:22	23 Shore Gardens Rd	23 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:44	23 Wyola Rd	23 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:21	25 Elm Ave	25 Elm Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:44	25 Orleans St	25 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:58	26 Barnstable St	26 Barnstable St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:44	26 Dellawanda Rd	26 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:46	26 Orleans St	26 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:31	26 Rockview Rd	26 Rockview Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:57	28 Barnstable St	28 Barnstable St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:26	28 Pond St	28 Pond St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:05	29 Gosnold St	29 Gosnold St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:47	29 Wyola Rd	29 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:33	3 Dellawanda Rd	3 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:10	30 Alsada Rd	30 Alsada Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:54	30 Dellawanda Rd	30 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:56	30 N Truro St	30 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:27	30 Pond St	30 Pond St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>

8/13/2019 11:49	31 Richards Rd	31 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:43	32 Richards Rd	32 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:15	32 Rockaway Ave	32 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:50	33 Richards Rd	33 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:48	33 Wyola Rd	33 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:54	333 George Washington Blvd	333 George Washington Blvd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:10	34 Nantasket Ave	34 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:14	34 Rockaway Ave	34 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:48	34 Wyola Rd	34 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 13:06	35 Barnstable St	35 Barnstable St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:59	35 N Truro St	35 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:30	35 Richards Rd	35 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:52	35 Wyola Rd	35 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 13:03	36 Barnstable St	36 Barnstable St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:58	36 Elm Ave	36 Elm Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:12	36 Nantasket Ave	36 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:11	36 Shore Gardens Rd	36 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:58	37 Elm Ave	37 Elm Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:31	37 Richards Rd	37 Richards Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:10	38 Alsada Rd	38 Alsada Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 13:04	38 Barnstable St	38 Barnstable St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:11	40 Rockaway Ave	40 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:54	41 Wyola Rd	41 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:12	42 Rockaway Ave	42 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:55	42 Wyola Rd	42 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:47	43 Orleans St	43 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:51	44 Chatham St	44 Chatham St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:47	45 Orleans St	45 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:07	46 Rockaway Ave	46 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:08	47 Rockaway Ave	47 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:07	48 Rockaway Ave	48 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:06	49 Rockaway Ave	49 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:56	49 Wyola Rd	49 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:17	5 Elm Ave	5 Elm Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:24	5 Pond St	5 Pond St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:14	50 Nantasket Ave	50 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:57	50 Wyola Rd	50 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:02	51 Rockaway Ave	51 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:42	52 N Truro St	52 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 11:16	52 Nantasket Ave	52 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:48	52 Orleans St	52 Orleans St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:24	54 Salisbury St	54 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>

8/13/2019 14:02	55 Gosnold St	55 Gosnold St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 12:00	56 N Truro St	56 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:26	56 Salisbury St	56 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:02	59 Gosnold St	59 Gosnold St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:36	6 Wyola Rd	6 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:34	60 Salisbury St	60 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:49	61 Barnstable St	61 Barnstable St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 12:03	61 Wyola Rd	61 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:58	63 Gosnold St	63 Gosnold St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:39	65 N Truro St	65 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:56	67 Gosnold St	67 Gosnold St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:38	67 N Truro St	67 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 12:39	67 Rowley St	67 Rowley St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:34	68 Salisbury St	68 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 14:00	69 Gosnold St	69 Gosnold St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:37	69 N Truro St	69 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:33	7 Dellawanda Rd	7 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:54	7 Salisbury St	7 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:36	7 Wyola Rd	7 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:37	73 N Truro St	73 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 13:54	73 Park Ave	73 Park Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 13:48	74 Park Ave	74 Park Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:35	77 Salisbury St	77 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 12:28	8 Onset St	8 Onset St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 13:57	82 Park Ave	82 Park Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:41	86 Salisbury St	86 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:22	87 Rockaway Ave	87 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:04	9 Alsada Rd	9 Alsada Rd Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 10:41	9 Dellawanda Rd	9 Dellawanda Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 10:53	9 Nantasket Ave	9 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/13/2019 13:48	9 Quanset St	9 Quanset St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/16/2019 13:15	9 School St	9 School St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 14:11	9 Shore Gardens Rd	9 Shore Gardens Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:42	9 Wyola Rd	9 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:31	90 N Truro St	90 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:41	94 Salisbury St	94 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:30	96 N Truro St	96 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 14:42	96 Salisbury St	96 Salisbury St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/14/2019 11:31	97 N Truro St	97 N Truro St Grinder Pump	Hull Grinder Pumps	Holman, Ryan	Sticker Replacement - Grinder Panels	<a href="#">View</a>
8/8/2019 11:23	97 Rockaway Ave	97 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels	<a href="#">View</a>





## **APPENDIX C: COMPLETED CMOM AND I/I PROJECTS EXPENDITURES**

Town - Hull Sewer Department - Expenditures related to I/I and CMOM work				
Contractor	Invoice Date	Work Completed	Scope of Work	Invoice Amount
Aqualine	1/24/2020	12/31/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	1,002,112.67
Aqualine	1/7/2020	11/30/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	249,419.05
Aqualine	10/15/2019	9/30/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	92,672.50
Woodard & Curran	1/28/2020	12/27/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	42,893.68
Woodard & Curran	12/27/2019	11/29/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	42,922.16
Woodard & Curran	11/19/2019	10/25/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	31,861.36
Woodard & Curran	10/21/2019	8/30/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	33,292.28
Woodard & Curran	9/26/2019	8/30/2019	Atlantic Ave Gunrock Sewer Infrastructure renewal	73,774.30
Woodard & Curran	2/11/2019	1/25/2019	Atlantic Ave Gunrock Sewer Renewal Design	2,609.75
Woodard & Curran	4/1/2019	3/8/2019	Atlantic Ave Gunrock Sewer Renewal Design	6,287.50
Woodard & Curran	5/2/2019	4/26/2019	Atlantic Ave Gunrock Sewer Renewal Design	1,303.50
BETA	1/14/2020	12/27/2019	CCTV Manhole Inspections	599.09
BETA	12/18/2020	11/29/2019	CCTV Manhole Inspections	18,210.36
BETA	11/19/2019	11/1/2019	CCTV Manhole Inspections	17,811.22
BETA	10/24/2019	9/27/2019	CCTV Manhole Inspections	10,529.37
Granite inliner	1/3/2020	11/24/2019	CIPP Lining Kenberma	12,800.00
Hub Construction	2/15/2019	2/11/2019	Emergency Replacement of sewer frame & cover at Menice Field	3,867.50
Aqualine	4/11/2019	4/2/2019	Frame & Cover Repairs Nantasket Ave in front of Bathhouse and in Parrot Parking lot	2,566.14
Woodard & Curran	2/11/2019	1/25/2019	Headworks & Pump Station repairs engineering	1,438.25
Woodard & Curran	3/12/2019	2/22/2019	Headworks & Pump Station repairs engineering	7,762.50
Woodard & Curran	4/22/2019	3/29/2019	Headworks & Pump Station repairs engineering	17,543.50
Woodard & Curran	5/24/2019	4/26/2019	Headworks & Pump Station repairs engineering	16,554.55
Woodard & Curran	12/27/2019	11/29/2019	Headworks & Pump Station repairs engineering	4,637.26
Woodard & Curran	11/19/2019	10/25/2019	Headworks & Pump Station repairs engineering	3,720.50

Town - Hull Sewer Department - Expenditures related to I/I and CMOM work				
Contractor	Invoice Date	Work Completed	Scope of Work	Invoice Amount
Woodard & Curran	10/21/2019	8/30/2019	Headworks & Pump Station repairs engineering	8,912.25
Woodard & Curran	10/7/2019	8/30/2019	Headworks & Pump Station repairs engineering	6,985.25
Woodard & Curran	7/30/2019	6/28/2019	Headworks & Pump Station repairs engineering	8,102.50
Woodard & Curran	8/5/2019	7/26/2019	Headworks & Pump Station repairs engineering	10,245.75
Woodard & Curran	7/12/2019	5/31/2019	Headworks & Pump Station repairs engineering	9,712.00
Woodard & Curran	2/14/2019	1/25/2019	Interceptor Assessment	7,224.41
Woodard & Curran	4/1/2019	3/8/2019	Interceptor Assessment	12,701.25
Woodard & Curran	5/13/2019	4/26/2019	Interceptor Assessment	899.43
Woodard & Curran	1/28/2020	12/27/2019	Interceptor Pipeline Renewal	26,136.17
Woodard & Curran	12/27/2019	11/29/2019	Interceptor Pipeline Renewal	42,741.63
Woodard & Curran	11/19/2019	10/25/2019	Interceptor Pipeline Renewal	35,537.70
Woodard & Curran	10/21/2019	8/30/2019	Interceptor Pipeline Renewal	35,920.64
Woodard & Curran	9/26/2019	8/30/2019	Interceptor Pipeline Renewal	76,868.80
John Hoaddley & Sons	11/22/2019	11/6/2019	manhole covers and frames	2,250.00
EJ USA	4/18/2019	4/1/2019	manhole covers frames	2,948.20
Hub Construction	3/18/2019	3/13/2019	manhole frames & covers various locations	7,254.50
Aqualine	8/10/2019	8/10/2019	Manhole repair Farina Road	3,776.21
Aqualine	8/21/2019	7/29/2019	Manhole Repairs varios locations	22,500.00
Woodard & Curran	2/11/2019	1/25/2019	Pump Station 1&3 and Force Main Condition Testing	369.50
Woodard & Curran	3/12/2019	2/22/2019	Pump Station 1&3 and Force Main Condition Testing	495.50
Aqualine	12/20/2019	12/12/2019	Pump Station 4	8,250.70
Aqualine	12/19/2019	12/5/2019	Pump Station 5	28,294.24
EJ USA	3/29/2019		Purchase of 12 manhole covers	2,073.68
Aqualine	2/4/2019	1/23/2019	Reair 36 Point Alleron	5,028.58
Aqualine	6/12/2019	6/8/2019	Repair 407 Nantasket Ave	9,757.66
Aqualine	9/12/2019		repair sewer Kenberma St & Nantasket Ave	30,000.00
National Water Main	11/25/2019	10/16/2019	Services to perform manhole reha	9,475.00

Town - Hull Sewer Department - Expenditures related to I/I and CMOM work				
Contractor	Invoice Date	Work Completed	Scope of Work	Invoice Amount
National Water Main	10/14/2019	9/25/2019	Services to perform manhole reha	32,100.00
National Water Main	9/19/2019	8/26/2019	Services to perform manhole reha	2,137.50
Woodard & Curran	2/11/2019	1/25/2019	Sewer Condition Assessment	1,734.06
Woodard & Curran	3/12/2019	2/22/2019	Sewer Condition Assessment	3,190.25
Woodard & Curran	4/22/2019	3/29/2019	Sewer Condition Assessment	4,048.00
Woodard & Curran	5/28/2019	4/26/2019	Sewer Condition Assessment	755.75
Woodard & Curran	10/21/2019	9/27/2019	Sewer Condition Assessment	427.75
Woodard & Curran	7/30/2019	6/28/2019	Sewer Condition Assessment	601.00
Woodard & Curran	7/12/2019	5/31/2019	Sewer Condition Assessment	3,146.00
Green Mountain Pipeline Services	8/9/2019	7/31/2019	Sewer Interceptor Pipeline Renewal	47,931.30
Green Mountain Pipeline Services	9/3/2019	8/31/2019	Sewer Interceptor Pipeline Renewal	56,139.30
Green Mountain Pipeline Services	10/7/2019	9/30/2019	Sewer Interceptor Pipeline Renewal	104,070.60
Green Mountain Pipeline Services	12/2/2019	10/31/2019	Sewer Interceptor Pipeline Renewal	88,108.70
Green Mountain Pipeline Services	12/9/2019	11/30/2019	Sewer Interceptor Pipeline Renewal	419,252.48
Green Mountain Pipeline Services	1/13/2020	12/31/2019	Sewer Interceptor Pipeline Renewal	780,220.94
Aqualine	1/24/2020	12/30/2019	Sewer Repair Farina Road	6,136.68
Woodard & Curran	1/28/2020	12/27/2019	SSES Underground Piping, Outfall	9,666.50
Woodard & Curran	12/27/2019	11/29/2019	SSES Underground Piping, Outfall	54,423.25
Woodard & Curran	11/19/2019	10/25/2019	SSES Underground Piping, Outfall	27,384.50
Woodard & Curran	10/21/2019	8/30/2019	SSES Underground Piping, Outfall	13,176.90
Woodard & Curran	10/11/2019		SSES Underground Piping, Outfall	9,742.98
Woodard & Curran	9/26/2019	8/30/2019	SSES Underground Piping, Outfall	3,290.50
Woodard & Curran	8/21/2019	8/16/2019	SSES Underground Piping, Outfall	17,450.00
John Hoaddley & Son	5/17/2019		Supplies for repair at Marginal Road Pump Station	3,803.36
<b>Total</b>				<b>3,800,588.84</b>

2019 Summary of Activity and Expenditures		
Row Labels	Sum of Details - Billing Amount	Notes
0087 Sturgis, James	\$ 880.00	Engineering - Structural
0531 Rose, Stephen	\$ 28,259.50	SCADA work - Plant and PS
1901 Gagliard, James	\$ 2,901.23	Maintenance and repair work - Plant & PS
2191 Fitzpatrick, Andrew	\$ 495.00	Engineering - Electrical
2402 St. George, Jody	\$ 26,192.42	Maintenance and repair work - Plant & PS
2909 Halpin, Patrick	\$ 322.00	Engineering - Electrical
4060 Kraus, David	\$ 201.25	SCADA WORK - Plant and PS
4239 Basler, Joseph	\$ 348.00	Maintenance and repair work - Plant & PS
4240 Sutton, Eric	\$ 301.00	Maintenance and repair work - Plant & PS
4519 Harvey, Seth	\$ 2,057.00	Engineering - Electrical
4702 Harrison, Timothy	\$ 3,316.50	Engineering - Plant and Pump Stations
4898 Bardin, Eric	\$ 4,596.00	Engineering - Plant and Pump Stations
4947 Lilley, Kristin	\$ 245.25	Administrative Work
4958 Feeney, Tyler	\$ 1,553.25	Engineering - Plant and Pump Stations
5036 Valinski, Nicholas	\$ 7,567.00	Engineering - Plant and Pump Stations
5300.13 Sub - Electrical	\$ 3,583.50	Plant and PS - R&M work
5304.01 Sub: Buildings & Grounds - C/O	\$ 27,752.88	Plant and PS - R&M work
5304.02 Sub: Electrical - C/O	\$ 29,628.34	Plant and PS - R&M work
5304.04 Sub: Instrumentation - C/O	\$ 1,637.82	Plant and PS - R&M work
5304.06 Sub - Mechanical - C/O	\$ 31,578.44	Plant and PS - R&M work
5200.05 Postage/Shipping	\$ 236.07	Plant and PS - R&M work
5200.12 Field Equipment	\$ 1,483.25	Plant and PS - R&M work
5200.20 Vehicle Expense	\$ 715.74	Plant and PS - R&M work
5204.05 Telephone & Internet Service - C/O	\$ 1,740.15	Plant and PS - R&M work
5204.06 Sewer User Fees - C/O	\$ 9,016.26	Plant and PS - R&M work
5204.26 Miscellaneous - C/O	\$ 51,725.78	Plant and PS - R&M work
5204.27 Misc Maintenance - C/O	\$ 2,471.63	Plant and PS - R&M work
5204.29 Buildings & Ground Maint - C/O	\$ 25,616.16	Plant and PS - R&M work
5204.30 Electrical Maintenance - C/O	\$ 20,568.90	Plant and PS - R&M work
5204.31 Misc. Maintenance - C/O	\$ 1,495.20	Plant and PS - R&M work
5204.34 Hand Tools Maintenance - C/O	\$ 1,658.64	Plant and PS - R&M work
5204.36 Instrumentation Maint. - C/O	\$ 20,327.64	Plant and PS - R&M work
5204.37 Janitorial Supplies - C/O	\$ 1,575.69	Plant and PS - R&M work
5204.39 Lubricants - C/O	\$ 5,112.70	Plant and PS - R&M work
5204.40 Mechanical Maintenance - C/O	\$ 101,497.08	Plant and PS - R&M work
5204.46 Sewerline Maintenance - C/O	\$ 80,676.09	Collection System work
5204.57 Computer Supplies - C/O	\$ 752.86	Plant R&M Work
5204.58 Postage - C/O	\$ 219.52	Plant R&M Work
5204.69 Travel Plant - C/O	\$ 361.34	Plant R&M Work
5204.71 Other Misc Expenses - C/O	\$ 635.35	Plant R&M Work
5204.79 Technology - Software	\$ 372.00	Plant R&M Work
5204.84 Trash Disposal - C/O	\$ 575.00	Plant R&M Work
Grand Total	\$ 502,249.43	

2018 Summary of Activity and Expenditures		
Row Labels	Sum of Details - Billing Amount	Notes
0531 Rose, Stephen	\$ 13,936.00	SCADA WORK - plant and PS
1901 Gagliard, James	\$ 8,746.54	Maintenance and repair work - plant & PS
2402 St. George, Jody	\$ 40,933.50	Maintenance and repair work - plant & PS
2452 Tirrell, Douglas	\$ 243.25	SCADA WORK - plant and PS
2736 Boughter, Kenneth	\$ 535.50	Maintenance and repair work - plant & PS
3077 Andrews, Donna	\$ 52.50	Adm. Support
4060 Kraus, David	\$ 6,438.50	SCADA WORK - plant and PS
4082 Platt, Zachary	\$ 113.00	Electrical work - plant
4422 Moorehead, Jesse	\$ 10,070.00	SCADA WORK - plant and PS
5200.01 Vehicle Expenses	\$ 44.00	Vehicle maint.

5200.05 Postage/Shipping	\$	423.91	Plant and PS - R&M work
5200.11 Field Supplies	\$	832.06	Plant and PS - R&M work
5200.12 Field Equipment	\$	748.95	Plant and PS - R&M work
5200.20 Vehicle Expense	\$	53.96	Plant and PS - R&M work
5204.01 Power - C/O	\$	5,500.00	Plant and PS - R&M work
5204.07 Water User Fees - C/O	\$	-	Plant and PS - R&M work
5204.21 Acids - C/O	\$	661.50	Plant and PS - R&M work
5204.25 Dechlorination Chemicals- C/O	\$	4,717.60	Plant and PS - R&M work
5204.26 Miscellaneous - C/O	\$	-	Plant and PS - R&M work
5204.27 Misc Maintenance - C/O	\$	2,623.58	Plant and PS - R&M work
5204.29 Buildings & Ground Maint - C/O	\$	19,778.36	Plant and PS - R&M work
5204.30 Electrical Maintenance - C/O	\$	49,574.20	Plant and PS - R&M work
5204.32 Equipment Rental Maint. - C/O	\$	2,832.75	Plant and PS - R&M work
5204.34 Hand Tools Maintenance - C/O	\$	2,018.16	Plant and PS - R&M work
5204.36 Instrumentation Maint. - C/O	\$	20,543.43	Plant and PS - R&M work
5204.37 Janitorial Supplies - C/O	\$	311.40	Plant and PS - R&M work
5204.39 Lubricants - C/O	\$	2,068.44	Plant and PS - R&M work
5204.40 Mechanical Maintenance - C/O	\$	143,671.64	Plant and PS - R&M work
5204.43 Vehicle Repairs - C/O	\$	131.95	Vehicle maint.
5204.46 Sewerline Maintenance - C/O	\$	125,924.48	Collection System work
5204.47 Sludge Hauling - C/O	\$	936.00	Plant R&M work
5204.48 Sludge Tipping - C/O	\$	1,527.01	Plant R&M work
5204.53 Lab Supplies - C/O	\$	188.40	Plant R&M work
5204.55 Outside Lab Services - C/O	\$	575.00	Plant R&M work
5204.56 Office Supplies - C/O	\$	41.38	Plant R&M work
5204.57 Computer Supplies - C/O	\$	529.13	Plant R&M work
5204.58 Postage - C/O	\$	147.15	Plant R&M work
5204.62 Health & Safety - C/O	\$	3,626.25	Plant R&M work
5204.69 Travel Plant - C/O	\$	662.74	Plant R&M work
5204.71 Other Misc Expenses - C/O	\$	15.88	Plant R&M work
5204.76 Administrative Charges - C/O	\$	44.92	Plant R&M work
5304.01 Sub: Buildings & Grounds - C/O	\$	5,028.79	Plant and PS - R&M work
5304.02 Sub: Electrical - C/O	\$	76,017.84	Plant and PS - R&M work
5304.03 Sub: Engineering - C/O	\$	3,050.00	Plant and PS - R&M work
5304.04 Sub: Instrumentation - C/O	\$	950.00	Plant and PS - R&M work
5304.06 Sub - Mechanical - C/O	\$	27,775.27	Plant and PS - R&M work
<b>Grand Total</b>	<b>\$</b>	<b>584,644.92</b>	



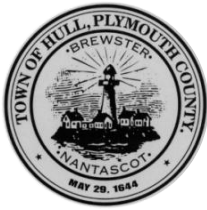
## **APPENDIX D:        UNAUTHORIZED DISCHARGE SUMMARY**

	Date	Type of Asset	Address	Latitude	Longitude	Cause of Discharge	If caused by blockage, what was blockage	If mechanical, when was the last inspection/failure date	Begin Time / Date	Stop Time / Date	Notification Source	Estimated release volume (gallons)	Method Used to Estimate Volume	Corrective action completed	Impact area Cleaned/disinfected?	Release to Town MS4?	Release to surface water
1	5/16/2019	Pump Station - No. 4	13 Marginal Rd.	42.271808	-70.86669	Broken force main pipe near building	N/A	N/A	5/16/2019 / 6:43 PM	5/16/2019 / 7:00 PM	Email	500	Visual - pump run time	Rain stopped & flows subsided. Road was shut down	yes - vacuum up and wash down area	Yes	Yes
2	6/7/2019	gravity sewer lateral	407 Nantasket Ave.	42.279041	-70.869202	blockage of lateral ser from building at interceptor	debris/rags	N/A	6/6/2019 / 11:00 AM	6/8/2019 / 9:00 AM	Email	1000	Visual	lateral sewer excavated and blockage at interceptor [existing liner cut out]	Yes, basement area pumped out to the sewer after repairs completed	No	No
3	7/14/2019	gravity sewer line MH	Near 7 Douglas Ave.	42.30352	-70.903693	blocked 3-inch gravity sewer lateral	debris/rags	N/A	7/14/2019 / 1:00 PM	7/14/2019 / 2:30 PM	Email	< 10	Visual	Pumped out small manhole until a septic pump truck came in and pumped out the manhole and the sewer line was jetted clear.	Yes, hosed down area	No	No
4	8/26/2019	Pump Station - No. 1	157 Atlantic Ave.	42.266995	-70.838602	Broken force main pipe near building	N/A	N/A	8/26/2019 / 1:00 PM	8/28/2019 / 9:00 AM	Phone/Email	< 100	Visual	Nearly all leakage was into the drywell of the pump station with no breakout. Repairs made to the FM piping	Yes, station was cleaned, and any other sewage was sub-surface. Testing of adjacent Straits Pond conducted	No	No
5	8/29/2019	N/A - Contractor Vehicle	710 Nantasket Ave	42.294566	-70.880434	Safety ball check valve of vactor truck got stuck	N/A	N/A	8/29/2019 / 2:25 PM	8/29/2019 / 2:30 PM	Email	< 50	visual	Washdown water did reach nearby catch basin, but contents vacuumed out.	Yes, area wahed down and contents vacuumed up	Yes	No
6	12/9/2019	temporary sewer bypass pipe	714 Nantasket Ave	42.295082	-70.880642	Discharge end of bypass pipe hit by tractor trailer truck	N/A	N/A	12/09/2019 / 4:45PM	12/09/2019 / 4:45PM	Email	7000	Estimated flow of bypass pump and time to secure end to direct flow to the manhole	Stop bypass pump, redirect flow to sewer manhole with sandbags. Repair end of pipe.	Washdown and vacuum out leaching manholes adjacent to area	Yes	No





## **APPENDIX E:                      EXAMPLES OF PUBLIC OUTREACH DOCUMENTS**



**TOWN OF HULL**  
Sewer Department

1111 Nantasket Avenue  
Hull, MA 02045  
Tel: (781) 925-1207  
Fax: (781) 925-3771  
Email: sewer@town.hull.ma.us  
www.town.hull.ma.us

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## **2019 ANNUAL REPORT**

To the Honorable Select Board and Citizens of Hull:

The Hull Sewer Department is pleased to submit our 2019 Annual Report. The Sewer Department operates as an enterprise account and as such is required to raise all revenue to cover operating expenses. These revenues are raised through sewer user fees and permit receipts.

In 2019, the average flow to the treatment plant was approximately 1.66 million gallons per day (mgd) which is down slightly from 1.71 mgd in 2018. The wastewater treatment facility was designed to treat an average of 3.07 mgd.

### **PERMANENT SEWER COMMISSION**

Rick Mattila (Chair), Peter Pyclik, Richard Booth, Louis Collins, Andrew Grosso.

### **SEWER DEPARTMENT STAFF**

John Struzziery (Director), Brian Kiely (Assistant Director), Carol O'Connor (Bookkeeper/Clerk), Terri Berardinelli (Facility Coordinator)

### **CONTRACT OPERATOR**

Woodard & Curran is our contract operator for the treatment facility and collection system and staffs the facility seven days a week, 365 days per year. Woodard & Curran also provides engineering services related to the treatment facility and collection system.

### **SEWER DEPARTMENT PROJECTS**

Thank you for voting for the many initiatives approved for funding at the Annual Town Meeting. Work for the priority projects included:

- **Design**
  - HVAC system replacement for the administration building at the treatment facility.
  - Headworks Concrete Repair and Influent Pipe at the treatment facility.
  - Sanitary Sewer Evaluation Study, including smoke testing, which is helping us locate sources of stormwater inflow into the sewer.
  - Sewer System Remedial Repairs which must be designed and constructed prior to this year's roadway paving.
  - WWTF Nature-Based Resiliency Measures funded by a grant from Coastal Zone Management (CZM) to protect the facility from future floods at sea level rise/climate change projections.

- The WWTF Facilities and Resiliency Plan is underway and will assess and prioritize the many needed improvements and system upgrades at the WWTF and pumping stations.
- **Construction**
  - Rehabilitation of the Nantasket Ave Sewer Interceptor, to be completed by early Spring 2020.
  - Atlantic Avenue/Gunrock Area Sewer Improvements to be completed before Summer 2020.
  - WWTF Electrical Service Upgrade funded by a grant from CZM which elevated our electrical transformer above projected sea level rise/climate change flooding projections was completed.
  - Sewer system remedial repairs in conjunction with the Town's Roadway Paving Program was completed.
  - Emergency Pump Station #4 Repairs for a force main break was completed.
- **Planning**
  - Conducted sewer assessments of approximately 20,000 feet of sewers in advance of the Town's roadway pavement management capital plan. Any corrective actions requiring roadway work will be done prior to paving to avoid damage to new finished pavement.
  - Implemented an Artificial Intelligence platform funded by a grant from the Clean Energy Council (CEC) which predicts and forecasts sewer flows and loads to improve energy efficiency and overall operations at the WWTF.
  - We have successfully advanced a FEMA grant application to the national level to compete for the funds to relocate critical electrical infrastructure to the second floor of the WWTF. We hope to hear a positive response soon.

## **MAINTENANCE AND UPGRADES**

Numerous other repairs, replacements and basic ongoing maintenance was performed throughout the system. Despite these improvements, there are significant repairs and replacements that are still needed and were prioritized as part of the Fiscal Sustainability Plan. This planning and design basis is being further developed through our Facilities and Resiliency Plan. The work will be performed as planned through existing bonding, grants, and continued state and local funding.

## **OPERATIONS**

The relatively pleasant weather of 2019 brought fewer storms that allowed us to get more corrective work done.

The regionalization of our system with portions of Cohasset and North Scituate has been slow to progress due to addressing changing needs in the other communities. The benefits to Hull in this regionalization concept would be more users to distribute costs for operations, improvements to our collection and treatment system, and better positioning for grant funding of our capital improvements program. Work will continue in 2020 if each community decides to advance to the next phase.

The facility complied with discharge permit requirements throughout the year with no variations or exceedances.

In 2019, we conducted the following inspections:

- 223 sump pump inspections at the time of home sales
- 22 inspections for new buildings subject to a rehabilitation fee which generated \$22,500 in revenue
- Sewer inspections for private properties
  - 12 second meter inspections
  - 10 abatement inspections

In addition, we responded to 6 sanitary sewer overflows, 27 resident backup calls, inspected 68 loud manhole frame and covers called in by residents, replaced 16 manhole frame and covers, and responded to 23 grinder pump calls.

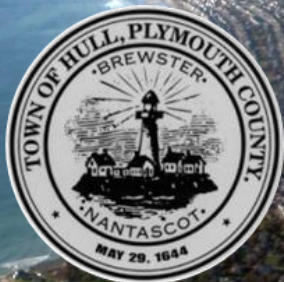
As always, “flushable” wipes and cooking grease continues to be a major problem in the sewer system. The presence of these materials in the system often leads to business and/or residential back-ups and cost a lot of money to remove. The money spent on these issues takes funding away from other, often more important issues that need to be resolved for continuity of operations. Please read the newsletter that is included with each sewer bill to find helpful hints on ways to decrease your possibility of experiencing a sewer back-up as well as tips and pointers as to what you should and shouldn’t discard into the municipal sewer system. Also note the new section “Sewerology” where you can learn all about sewer terms, how the system works, and the challenges faced in this industry.

We would like to thank our Woodard & Curran contract operators for their hard work and commitment over the past year. Thanks to the Permanent Sewer Commission for their volunteer efforts in shaping sewer policies and budget awareness/monitoring as it relates to user rates. Finally, a special thank you to our office staff for their professionalism, attention to detail, in dealing with billing, records, and day to day matters.

Much progress has been made and I thank you for your continued support in helping to maintain and upgrade our wastewater collection and treatment systems.

Respectfully submitted,

John J. Struzziery, P.E.  
Director of Wastewater Operations



# Sewer Works

Newsletter of the Hull Sewer Department  
Spring 2019

## Operations Message

Many projects are complete or in progress. I'm pleased to indicate that the above ground storage tank is complete, as is the energy and efficiencies projects for which we received a \$61,685 grant from the Massachusetts Department of Energy Resources (DOER) last year. The electrical service and transformer relocation to a platform-mounted structure on two utility poles is nearing completion. This work was funded through a \$148,350 grant from the Massachusetts Office of Coastal Zone Management (CZM) as a part of our coastal resiliency measures to address climate change and sea level rise. We recently filed a \$475,000 grant application to the Federal Emergency Management Agency (FEMA) to raise critical electrical equipment at the treatment facility to maintain some treatment capability in the event of a major event. This Spring, we are also applying for a new round of CZM funding to provide nature-based solutions such as earthen berms, drainage swales, and ocean wash over basins, to enhance our site resiliency. Another resiliency approach we have underway is the design of a replacement HVAC system for the administration building to relocate the mechanical room to the second floor. We expect to know whether this project is within our budget by September/October of this year. As you can see, there is ample opportunity to take advantage of grants to fund projects we have planned. This supplements our ability to address pressing needs within available funds.

Over the past few months, we performed condition assessments for over 21,500 feet of sewers and 100 manholes throughout the system. This work is to determine if any remedial work is needed prior to the Town's roadway paving program in those streets. As a result of our investigations, over 1,300 feet and 12 manholes will require some form of remediation by either dig and replace or trenchless techniques. We are currently evaluating how best to get this work done. This Fall, we will also be conducting another round of sewer assessments to stay ahead of next year's road program.

We expect to start the Nantasket Avenue Interceptor Rehabilitation project in June and it will take approximately six months to complete. The Atlantic Avenue/Gunrock area Sewer Improvements project is expected to commence in June/July and estimated to take approximately ten months to complete. Both of these projects are planned to be complete ahead of scheduled paving projects in those areas.

All of this is in addition to other planned projects that we have underway at the treatment facility, pumping stations, and other parts of the collection system. Much is happening and we ask for your continued support and patience throughout the construction of these projects.

**John J. Struzziery, P.E., Director of Wastewater Operations**

## Reminders

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**Remember the 3 P's:** Nothing down the toilet but Paper-Pee and Poo.

**No Wipes in the Pipes:** Wipes, rags and other debris not intended to be in the sewer (even if labeled as Disposable and Flushable), are a major source of sewer backups and clogged pipes. Wipes create blockages in pipes-yours and ours.



*Wipes clog pipes, as well as manholes and equipment, causing sewer backups and requiring expensive maintenance.*

**The Drain is not a Dump:** Fats, Oils & Grease (FOG) also clog sewer pipes. Do your part by not disposing of FOG down the drain; rather, can it, cool it, and toss it in the trash.

**Garbage Disposal Waste:** Excessive food waste clogs the sewers and causes backups. Please dispose of food scraps in the trash rather than down the drain.



Check status of projects and updates on our web page  
<http://www.town.hull.ma.us>, click Town Departments and then Sewer Department (found under Public Utilities)



Also, check out our Facebook page by searching Hull Sewer Department through Facebook

### Other Projects Underway

In addition to projects mentioned in the Operations Message, there are several other projects worth mentioning:

- **Headworks Rehabilitation** - In the final design phase for measures that will restore concrete surfaces and pipelines showing severe deterioration from the corrosive atmosphere in the WWTF Headworks. Implementation planned for late 2019.
- **Effluent Pump Room Rehabilitation** - In the final design phase for measures that will floodproof the below-ground Effluent Pump Room which is critical to the operation of the WWTF during storm events. The floodproofing measures include sealing penetrations, equipment and electrical upgrades to maintain operations when wet. Planned implementation early/mid 2020.
- **Pump Station Upgrades and Resiliency** - Evaluating pump station resiliency upgrades that address raising pump station structures and electrical equipment above the flood zone. Considerations include submersible or immersible pumps that can operate while underwater. Also included are aging piping and valve replacements.
- **Energy & Efficiency Grant** - We received approval of the grant through the Massachusetts Clean Energy Council (CEC) in the amount of \$140,627. The funding is to install artificial intelligence technology to optimize collection system efficiency, influent forecasting, plant performance, pump station analytics, activated sludge optimization and solids capture efficiency. It is expected that the project will optimize operations, improve efficiencies, more accurately monitor and forecast plant flows as well as tidal and weather information to minimize operational risk. Contract provisions are being reviewed with the state and the consultants. Work is expected to begin in June/July.



Corrosive gasses in the WWTF Headworks corroded the influent pipe shown here. Because of difficult access, the pipe will be rehabilitated in-place to restore its structural integrity.

### Planning Projects

There are many planning projects that will be taking place over the next year which all lead to various degrees of assessment of current conditions and future needs. Each of these are summarized below:

- **Updated Facilities Plan** - This project will evaluate various unit processes, equipment, and operations to determine whether more optimal approaches or replacement of outdated equipment would better serve our needs. It is expected that the results from this evaluation will form the basis for an update to the successive years capital funding.
- **Sewer System Evaluation Survey (SSES)** - This evaluation will perform condition assessments within the building and the underground piping throughout the facility. Included will be a condition assessment of the ocean outfall and diffusers on which we depend for the discharge of the treated water from the facility. The SSES will also include other investigations throughout portions of the collection system, mostly where the older sewers are located on hills. The purpose of these investigations is to track extraneous sources of groundwater and rain water that enter our sewer system, which takes valuable capacity.
- **Reliability Centered Maintenance (RCM)** - The Sewer Department and Contract Operator will implement a program, facilitated by an RCM consultant, which will optimize processes and maintenance of critical equipment to improve the reliability of the WWTF. The outcome will be effective long-term asset management for the most critical assets at the WWTF.

Follow ongoing activities on our web page and Facebook page - See links in the front page margin this Newsletter.

**Reminders** – We continue to get emergency calls for clogged pipes, pumps and equipment. Many of these result in wastewater discharges to the ground or in some cases into homes which could have been avoided. Such discharges must be reported to numerous local, state, and federal agencies and could result in fines. Our goal is to avoid any discharges, fines and violations. Please do your part by knowing what not to put down the sewer.





# Sewer Works

## Newsletter of the Hull Sewer Department Summer 2019

### Operations Message

**Your Sewer Dollars at Work:** You likely have noticed that work has begun on the Nantasket Avenue Sewer Interceptor Rehabilitation with the preliminary pipe cleaning and inspection activities. Work on the Atlantic Avenue/Gunrock Area Sewer Improvement project is expected to begin during the week of August 5th. Expect to see activity increase on both of these projects in the coming weeks and months. Updates will be posted on the town website and on our Facebook page as work progresses. I'm pleased to report that the electrical service upgrade and transformer relocation project was completed on time and under budget. This work was partially funded through a \$148,350 grant from the Massachusetts Office of Coastal Zone Management (CZM) as a part of our coastal resiliency measures to address climate change and sea level rise. We are reviewing the 30 percent design of a replacement HVAC system for the administration building in order to relocate the mechanical room to the second floor.



We are staying ahead of the Town's roadway paving program by inspecting sewer infrastructure within the roads to be repaved and making any needed repairs before surface improvements are made. There are several areas where these projects will be done this summer.

At the treatment facility, we are finalizing the design of the Headworks and Influent Pipe Rehabilitation, and the Effluent Pump Room Rehabilitation. We expect to see construction on these projects late this Fall. Updating the facilities plan and increasing

the resiliency of our treatment facility and pump stations has been another focus.

#### Elevated electrical transformers

businesses associated with food preparation. Most of these businesses are required to operate and maintain a grease interceptor. Be diligent in the maintenance of your grease interceptor if you have one as the operation of your business may depend on it. If water won't flow down your drain, you may not be able to serve your customers. Grease interceptor owners are responsible for their continuous operation as well as reporting requirements with the Board of Health.

Please also keep in mind that sump pumps and gutters/down spouts should not be connected to the sewer. It costs us just as much to treat a gallon of floodwater from your basement or roof as it does a gallon of sanitary wastewater. Your sump pump or down spouts, if you have any, should be directed to a suitable location such as possibly outside to your yard. If you need help understanding where your sump pump or roof leader is discharging to, the Sewer Department will be happy to help!

**John J. Struzziery, P.E., Director of Wastewater Operations**

### Updates/Reminders

**Sewer Bills:** This billing period includes the Town Meeting approved increase of 7.5% in the sewer use rate. This reflects the increased capital expenditures being used to update and rehabilitate our sewer infrastructure.

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**Unauthorized Sewer Discharges:** The following **SHOULD NOT BE** disposed of down your drain to the sewer:

- Fats, Oils & Grease (FOG)
- Disposable Wipes (also known as "Flushable Wipes"-Baby Wipes-Makeup wipes-Cleaning wipes should not be flushed! Rather discard them in the trash.
- Dental floss, hair, nasal tissues
- Garbage Disposal Waste
- Any debris that may cause damage to your sewer plumbing or our sewer infrastructure

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See construction updates on back page

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Check status of construction projects and updates on our web page  
<http://www.town.hull.ma.us>, click Town Departments and then Sewer Department (found under Public Utilities)



Also, check out our Facebook page by searching Hull Sewer Department through Facebook

### Construction Project Update

**"Sewer Construction Ahead-Expect Delays"** Hopefully you have seen the message boards at either end of Nantasket Avenue advising that sewer projects have started and to expect delays. The first and most significant project in terms of community impact is the rehabilitation of the Nantasket Avenue interceptor sewer. For the next few weeks crews will be working between Kenberma Street and Lynn Avenue cleaning and inspecting the 36-inch diameter sewer. Once cleaning is complete, a sewer bypass system consisting of pumps and pipes will be placed on the surface of the road. This will perhaps be the biggest surface impact of the project as vehicles within the bypass zone will not be able to take a left turn and will need to detour right around the zone. Once the bypass is in place, a liner will be installed inside the existing pipe to form a new pipe within the pipe. All service connections will then be reinstated, and this section of sewer will be placed back in service. The operation will continue down the avenue in a similar manner each 1000 feet or so until the WWTF.



Pipe cleaning work zone

The other project expected to start the week of August 12<sup>th</sup> is the Atlantic Avenue Sewer Improvement Project. The project will rehabilitate and replace in some areas, most of the gravity and pressure pipe in the Atlantic Avenue area between Nantasket Avenue and Summit Avenue.

**Remedial Constriction:** Any sections of sewers or manholes that needs attention identified in advance of the roadway paving work will be corrected by various contractors. We have already replaced a number of manhole frame and covers and will be repairing two identified sections of defective sewers, as well as rehabilitating eight severely deteriorated manholes on Nantasket Avenue between Atlantic Avenue and School Street.

*Additional information and updates on these projects will be posted on our webpage and Facebook page*

*Follow ongoing activities on our web page and Facebook page - See links in the front-page margin this Newsletter.*

### Other Projects

**In addition to projects mentioned in the Operations Message, there are several other projects now underway:**

- **Outfall Investigation:** We'll be performing a side scan sonar and a remote operating underwater vehicle inspection of the 24-inch diameter outfall pipe and diffusers that go from the last tank at the WWTF and discharge the treated wastewater approximately 2,700 feet offshore in the channel near Boston Lighthouse. From those inspections, we'll determine if there is need for other remedial work.
- **Headworks Rehabilitation:** We have reviewed alternative approaches to restore concrete surfaces and pipelines showing severe deterioration from the corrosive atmosphere in the Headworks. Construction is expected in the Fall.
- **Pump Station Upgrades and Resiliency:** We are evaluating pump station resiliency upgrades that address raising pump station structures and electrical equipment above the flood zone and sea level rise projections. Considerations include submersible or immersible pumps that can operate while underwater. Also included are aging piping and valve replacements. Pump stations included are at Draper Avenue, Marginal Road, Pemberton, and Valley Beach Avenue.

### Pending Grants

**Coastal Zone Management:** We applied for a grant amount of \$260,000 for additional resiliency measures to protect the Wastewater Treatment Facility from sea level rise and storm surge and expect to hear on status shortly.

**FEMA Hazard Mitigation Grant** We also expect to hear shortly on another grant application in the amount of \$633,000 on a project to relocate essential electrical equipment and controls to the second floor of the administration building and replace critical equipment most important to operations.





# Sewer Works

## Newsletter of the Hull Sewer Department Fall 2019

### Operations Message

**Making Progress:** Most everyone reading this Newsletter has probably noticed construction just about everywhere in town. Sewer projects include the Nantasket Avenue interceptor sewer rehabilitation, the Atlantic Avenue sewer improvements, manhole rehabilitation, smoke testing to find sources of stormwater into our system, pump station upgrades, and other projects at the treatment plant.



**Surface bypass pipe**



**These pumps will be used to divert flows**

Perhaps the most visible and certainly the most significant in terms of our sewer infrastructure upgrade projects, is the Nantasket Avenue interceptor rehabilitation. This

interceptor pipeline (see Sewerology on next page) carries most of the wastewater that comes to the treatment facility. It is a 30- and 36-inch diameter concrete sewer extending from Water/Bay Streets, along Nantasket Avenue and Fitzpatrick Way to the treatment facility. It is over 40 years old and has significant deterioration that would eventually lead to collapse and create greater environmental harm and impact to our community if not for this rehabilitation. This project is the third and last phase of a planned approach started about 15 years ago to rehabilitate the interceptor.

The current project extends from Kenberma Street along Nantasket Avenue and Fitzpatrick Way to the treatment facility. The work will be performed in segments and for each segment, it will consist of cleaning and inspecting the interceptor sewer, installing a liner in the sewer which will become a new pipe inside the existing pipe, reinstating service connections from inside the pipe, and rehabilitating manholes. More information on this work will be included in the next Newsletter and on Facebook and web page updates.

Although the work is considered a trenchless technology, meaning there is little or no excavation (trenches) from the surface, there are surface disruptions and impacts associated with the work. Since flow must be diverted from the sewer, pumps and a bypass pipe along the road surface will be used. Within each section and segment of work, traffic and pedestrian detours will be in place, effectively preventing left hand turns and directing traffic around the work zone. Pedestrians are advised not to cross over the pipe. Traffic towards the schools and Hull Ferry will be prioritized during the morning commute. Weather permitting, work is expected to extend into late January/February.

John J. Struzziery, P.E., Director of Wastewater Operations

### Updates/Reminders

**Sewer Bills:** This billing period maintains the Town Meeting approved increase of 7.5% in the sewer use rate.



Check status of construction projects and updates on our web page <http://www.town.hull.ma.us>, click Town Departments and then Sewer Department (found under Public Utilities)



Also, check out our Facebook page by searching Hull Sewer Department through Facebook

**Grants:** The Sewer Department is aware of the significance of the planned capital expenditures and impacts on sewer user rates. We are also mindful of our vulnerability to coastal storms and sea level rise. We have been actively pursuing grant opportunities that will provide resiliency to protect the treatment facility from these dynamic conditions. We have been successful in this endeavor and have received two grants this year. One is for \$260,000 from the Massachusetts Office of Coastal Zone Management. This project includes design, permitting and public outreach for an earthen berm, green infrastructure, nature-based solutions and structural improvements to provide flood protection at the treatment facility. Another project through the Massachusetts Clean Energy Council, with a grant amount of \$140,627 will provide artificial intelligence for the collection system, influent forecasting, plant performance, and pump station analytics.

A \$475,000 grant application through FEMA has advanced to the national level for selection consideration. This grant if received will relocate WWTF electrical equipment and controls to the second floor of the administration building to protect critical equipment most important to maintaining functionality of the facility during a major storm event. Lastly, we are continuing to seek other outside funding and plan on submitting a grant application through the Massachusetts Municipal Vulnerability Program for pumping station improvements at Marginal Road.

**Sewerology:** This section helps explain certain terms in our Newsletter and web page/Facebook updates. Each type of sewer in our system has been constructed of a range of different materials which becomes a challenge when dealing with corrosion control, leakage and structural integrity. Parts of our system date back to the 1850s with much of the modern-day system constructed since 1974.

**Lateral Sewer or Service Connection:** This is the sewer (typically 4" to 6" in diameter) that connects the plumbing in your house to the collector sewer in the street.

**Sanitary/Collector Sewer:** This is the sewer in the street (typically 6" to 12" in diameter) that collects service laterals from each building along the street.

**Interceptor Sewer:** This is the largest sewer in our system (30" and 36" in diameter) that connects laterals and collector sewers.

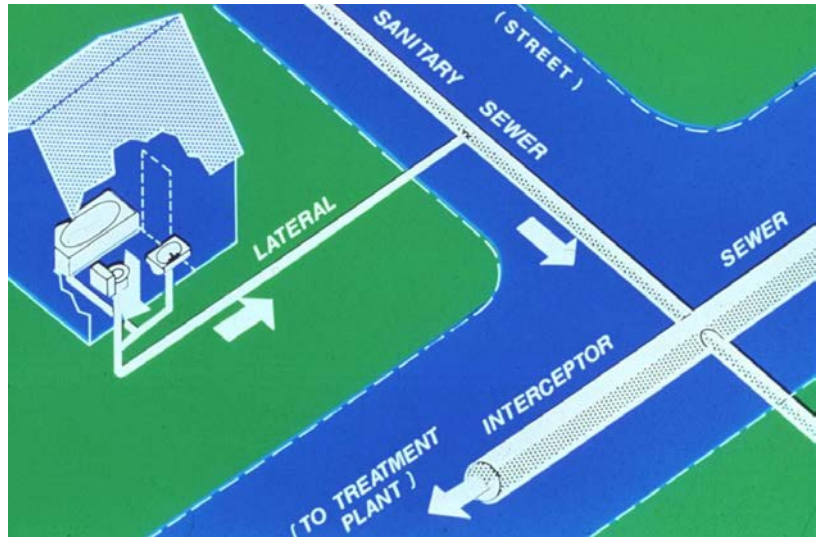


Image courtesy of Ryan Kirkbaum/Pinterest

**Manholes:** These are 4 to 6-foot diameter precast reinforced concrete structures that connect many of the sewers mentioned above, at changes in direction, or changes in grade; and allows access to the sewers for cleaning and inspection. Cast iron circular frames and covers are attached to the top of manholes and are the only visible sign of where sewers are located underground. Covers typically are imprinted with "SEWER" to distinguish from other utility manholes.

**Rehabilitation:** This refers to any form of trenchless (little or no excavation) and dig and replace techniques to improve the structural and hydraulic characteristics of any of the pipes and manholes in the system. There are a variety of rehabilitation techniques. Our pipeline rehabilitation projects typically include installing a flexible felt liner, saturated with polyester resin, that is installed inside the pipeline from the manhole, opening up and expanding against the wall of the sewer pipe, heated to create a reaction with the resin, and allowed to cure and cool down before cutting the ends and reinstating service connections. Wastewater in the sewer must be bypassed for this process.

#### How can you help control costs?

- Nothing down the sewer but Paper, Pee and Poo (the 3 Ps)
- Wipes clog pipes even if they say they are flushable-discard wipes in the trash, not down the toilet
- Check to make sure your sump pump and/or gutters are not connected to the sewer-this puts stormwater into the sewer and costs more to pump and treat
- If you need help understanding where your sump pump or roof leader is discharging to, the Sewer Department will be happy to help!
- Contain grease and discharge in the trash, not the sewer



Image courtesy of MWRA





# Sewer Works

## Newsletter of the Hull Sewer Department Winter 2020

### Operations Message

Most if not all reading this Newsletter have been impacted in some way by the various projects (see below) being performed throughout the sewer system. While many of these projects have been visible to all, there are just as many projects being performed within the treatment facility and remote pumping stations that may not be as apparent. We are well underway in the implementation of our capital improvement program that was planned four years ago. Significant progress has been made and continues to be made with each of the projects summarized below to meet our goals of Reliability, Redundancy and Resilience. These projects are being done in recognition of the recommended projects and funding plan approved at the prior two annual Town Meetings. We again thank you for your patience, understanding and cooperation as we undertake these important projects.

**John J. Struzziery, P.E., Director of Wastewater Operations**

#### Project Updates:

**Nantasket Avenue Interceptor Sewer:** As of January 17th, the contractor has completed 13 of 19 pipeline installations to rehabilitate the existing sewer. Manhole rehabilitation is following pipelining. Good progress is being made and project completion is expected by the end of February if we continue to get good weather. **NOTE: If heavy snow is forecasted, work will be halted and the bypass pipe will be removed from the road until conditions improve.**

**Atlantic Avenue Sewer Improvements:** Much of the planned work has been completed, however, due to conditions different from what was expected, a trenchless approach to what was planned is no longer viable and a change order is being processed that will result in digging and replacing the existing sewer between Montana Avenue and Driftway. Work is now projected to be complete by early May.

**Coordination with Roadway Program:** Most of the sewers and storm drains within the roadways scheduled to be paved this year have been inspected and condition assessments made to determine what areas can be repaired with trenchless techniques. There are several repairs that require excavation. Some of these repairs have been made already and others will be planned as part of separate projects in advance of the paving.

#### Sewer System Evaluation Survey:

- **Outfall** - Last Fall we completed the side scan sonar, remotely operated vehicle and dive inspections of the outfall, verified the pipeline location with coordinates, and located 17 of the 36 diffuser heads. It appears the pipe is in good condition; however, there are areas in the outfall that have deposited sand that limits the pipe capacity. Continued monitoring to verify trends over time and assess if other diffusers can be found will be the next steps.

**Sewer Bill Reminder:** This billing period maintains the Town Meeting approved increase of 7.5% in the sewer user rate.

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**A walk through some of the many steps to a successful Cured-in-Place Pipeline (CIPP) operation:**



*The sewer flow must be bypassed leaving a clean, empty pipe to work with.*



*The felt/resin liner is pulled through the existing pipe and steam is used to cure the liner.*

...

**Good News:** Over the past quarter, it is apparent that we have received fewer calls for backups-we would like to think that our prior messages are starting to take affect: **Nothing down the toilet but Paper, Pee and Poo (the 3 Ps Wipes clog pipes even if they say they are flushable)-discard wipes in the trash. Contain grease and discard in the trash, not the sewer. Hair, dental floss, and facial tissue also clog sewers-discard in the trash. Image courtesy of MWRA.**



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Check status of construction projects and updates on our web page  
<https://www.town.hull.ma.us/sewer-department>



Weekly project updates on the ongoing construction projects are on our Facebook page-check us out and **Like** us.

- *Underground Piping* - A condition assessment of underground piping at the treatment facility is underway to determine what if any work is needed for continued service. Test pits, corrosion testing and ultra-sonic thickness testing is planned over the coming months.
- *Collection System* - We are awaiting the results and recommendations of the smoke testing work that was performed last Fall. We expect there will be supplemental monitoring, recommended sewer and storm drain repairs, targeted inspections of some homes to investigate connections to the sewer, and other recommendations focused on reducing the amount of groundwater infiltration and storm inflow into the sewer system.

WWTF HVAC: Final design of the replacement HVAC system at the treatment facility is expected in early February. Construction is expected about mid-year.

Critical Replacements: A new 8-inch portable pump and generator were purchased that will provide greater redundancy and capabilities should any existing pump operation or power be disrupted.

Facilities and Resiliency Plan: The focus of this project is to combine all past studies, reports and operating history at the treatment facility into one combined document that provides recommended improvements that will serve the facility's needs for the next 20 years. We have been meeting regularly with our consultant and expect a draft report by the end of February.

Pumping Station Upgrades & Resiliency: This assessment of the pumping stations is part of the facilities and resiliency plan noted above. There were three pump stations initially targeted for review with a fourth added due to the condition found in making the overall assessment. We expect that there may be several rebuilds of the pumping stations especially the waterfront locations.

Reliability Centered Maintenance (RCM): The analysis/training program is complete and we have returned comments on a draft report from the consultant.

#### Grants Update:

- CZM Facilities & Resiliency Design: Early-stage design of WWTF perimeter flood protection. We expect to have a 35% Conceptual Design technical memo this month. The memo will establish the design approaches, project design criteria and identify permitting needs. Pre-permitting meetings are being coordinated with multiple agencies.
- CEC: An Artificial Intelligence platform is being implemented to analyze and forecast WWTF flow and load data, which will be used to improve energy efficiency in our operations. The system has been set up and kicked off for influent and effluent pumping as well as aeration basin controls.
- FEMA: We expect to hear shortly about the electrical equipment and controls relocation to the second floor of the administration building to protect critical equipment to maintain system functionality during a significant storm event.

Looking Ahead: Currently (January 2020) we are in our annual budget preparation cycle that will be reviewed with the Town Manager, Select Board, and Advisory Committee before being presented for approval at the May Town Meeting. As part of this planning, we are also updating and preparing the next series of capital projects that will be the basis for an additional bond authorization that will be requested for approval.

## Sewerology

**Trenchless Technology:** Utility construction work that has little or no excavation from the surface generally resulting in being faster, less impact, and less cost compared to conventional excavation work.

**Cured-In-Place Pipelining (CIPP):** A method of rehabilitating sewer pipes by installing a felt or other fabric liner such as fiberglass, saturated with resin, inside the pipe, heating the resin with steam, hot water, or ultra violet light to trigger a reaction with the resin, allowing the liner to cool, to create a hard pipe inside the existing pipe to provide long-term structural integrity and corrosion resistance to the existing concrete sewer pipe in our system. This is the process being performed along Nantasket Avenue.



**Manhole Rehabilitation:** A method of reconstructing the inside walls of the manholes by cleaning and preparing the surface, spraying a 1/8" thickness of cement mortar, and then spraying an epoxy coating for corrosion resistance. This is the process being performed along Nantasket Avenue (see image to left).

**Bypass Pumping:** The orange pumps and black pipe along Nantasket Avenue is the method being used to divert wastewater from the sewer being lined which must be done by bypass flows in this manner.

**Lateral Lining:** A method of CIPP used on the property services between each house and the mainline sewer, similar to CIPP described above, only on a smaller scale. This is the process being performed along Atlantic Avenue.

